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Notes and Items.

THE following report is made of the work at the Children's Homœopathic Hospital, 914 North Broad street, for the past month: Number of children in hospital, 24; surgical cases, 16; medical, 8; admitted during the month, 9; discharged, 4; removed, 1. In the out-patient department there were 571 general medicine cases; 156 surgical; 113 ear, nose and throat; eye, 56; diseases of women, 50; diseases of the skin, 12; dental, 25. Total number of cases, 975.

A PERSON is taller in the morning than at night. The reason is that he is pressed down during the day by the weight of the atmosphere, and by the pressure of the upper parts of his body and such burdens as he may carry. These weights press down the cartilages at the joints, and especially those in the spinal column, so that the height of the man is reduced. When the weights are removed and he lies down at night the cartilages act like cushions and gradually return to their original size. M. Robert reports measurements of 287 persons, showing a difference in height between morning and night measurements of six to twenty millimeters (one-fifth to four-fifths of an inch). This fact is well understood among French conscripts, and M. Paul Topinard reports that some of them, who are just upon or very slightly above the minimum limit as to height, walk about with heavy weights upon their shoulders for several days and during the night immediately preceding the final measurements, in order to reduce their heights. This practice has been so successful that in some extreme cases, according to the same authority, the height of a man has been reduced by it more than an inch. As men advance in age the cartilages do not fully recover during the night from the effects of the day's compression. The result of this is that men are commonly not so tall at an advanced age as in middle life. Extreme cases of this, reported by M. Tenon, are of a man who had lost one and one-half inches at the age of seventy, and another who had lost one and nine-tenths inches at the age of eighty-five.

The following fac-simile is a sample of hundreds of communications which we are continually receiving from the Medical Profession in regard to the value of *LACTO-PREPARATA* in Infant Feeding.

WE DO NOT SOLICIT TESTIMONIALS, NOR PUBLISH THEM WITHOUT PERMISSION.

Kansas City Mo. June 8 th 91

Reed & Carnrick
New York

Gents

I have just received your samples of Lacto-Preparata. Would take pleasure in saying that it is no stranger to me. On the 4th inst. I reported to our Dist: Med. Society here two cases of very young infants who had Cholera-infantum produced mainly by their mother's milk being unfit. They were in the last stage of prostration In articulo-mortis nearly I put them on R. & C's Lacto-Preparata, and forbid any more mother's milk. They both recovered Speedily. I regard Lo-P. as the sine qua non of all young baby food. I thank you for getting it up. Five years ago those children would have gone where all have to go soon

Very truly
B. F. Records M.D.

REED & CARNRICK, Manufacturing Chemists, New York.

The Times and Register.

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Original Articles.

IRON; ITS CHEMISTRY, PHARMACOLOGY, PHYSIOLOGICAL AND THERAPEUTIC ACTION.

BY WILLIAM H. WALLING, M.D.,
PHILADELPHIA.

RECENT PREPARATIONS OF IRON.

CHEMISTRY.—Iron is one of the most widely diffused substances in nature. It enters into combination with all the elements in two proportions, forming two varieties of salts, the *ferrous* and the *ferric*. Those salts in which the atom of iron appears to possess inferior affinity—that is, in which the other radicals are in less amount—are termed ferrous, the higher being ferric. In the former the iron is bivalent, Fe″, in the latter trivalent, Fe‴, or sometimes sexavalent, Fe_2 vi. Why the quantivalence of the atom of iron should thus vary, is not at present known, but it is an important fact.

The ferrous salts, when moist, are easily oxidized upon exposure to the air, or to oxidizing agents. Ferrous solutions, free from ferric salts, are not affected by potassium ferro-cyanide, or tannin. The sulphate of iron is an example of the ferrous variety, with the formula $2\ Fe_2\ SO_4$, while the persulphate is a ferric salt, the formula being $3\ (Fe_2{}_3SO_4)$.

Reduced iron, or iron by hydrogen, Fe_2, is pure metallic iron, in a very finely divided state. This form of the metal has a great affinity for oxygen, and if, during the process of manufacture, and while still hot, it be thrown into the air, it takes fire and falls to the ground as an oxide. This preparation, valuable as it it is supposed to be, often contains impurities, but aside from these, if long kept, or if exposed to moist air, becomes oxidized. In order to get the best results from its administration, it should be furnished by the manufacturer in drachm vials, hermetrically sealed, and which, once opened, the contents should be immediately used, or thrown away. In the stomach, the recent preparation is decomposed, sulphureted hydrogen being evolved, which renders its use objectionable in some cases.

Ferric salts are either normal or basic, the soluble normal salts having an acid reaction. Solutions of the ferric salts are darkened by ferri-cyanide of potassium to an olive-brown color, while the ferro-cyanide of potassium precipitates Prussian blue. Solutions of ferric salts, treated with metallic iron, sulphurous acid, or other deoxidizing agents, are reduced to ferrous salts. Gallo-tannic acid causes a blue-black precipitate and color (writing ink).

Pharmacology.—The preparations of iron are so numerous that space will permit of but a brief mention of the most important.

The oldest form of iron in use is the red brown oxide, or iron-rust. The one most largely used is the tincture of the chloride of iron, being a solution of a ferric salt. As found in the drug stores, it is usually prepared from the strong solution of the "United States Pharmacopœia," by mixing it with alcohol in the proportion of 6 fluidounces of the former and 19 fluidounces of the latter. The directions of the "Pharmacopœia" are, that after thus mixing, the solution should stand in a closely-covered vessel for at least three months before being dispensed. I doubt of this part of the formula being complied with in many cases.

The strong solution, or liq. ferri chloridi, of the "United States Pharmacopœia" is furnished to the retail druggists by the manufacturing chemists; but I have found it to vary widely in character. Some solutions, having been carefully prepared, and being free from impurities, would keep unchanged for months, while others would show, in a comparatively short time, a large amount of a reddish-brown precipitate, due to organic impurities present. This precipitate I have noticed in the furnished tincture upon standing for some time. This, of course, renders the preparation less efficient, the proportion of the metal having been reduced to an unknown ex-

tent. Valuable as is this old, and in many cases reliable, hematinic, its strong acidity and astringency renders its use inadvisable in many conditions where iron is indicated.

What is needed by the clinicians is a preparation of iron free from the above objections, and one that is readily assimilable. To meet this demand, a number of preparations have been placed upon the market, prominent among which are the following: The albuminate of iron, ferrum saccharatum (or eisensucker of the Germans), dialized iron, the peptonate, ferrum sanguinis, levulose ferride, the elixir of the three chlorides, salicylate of iron, and the succinate, or the elixir of the succinate, of the peroxide of iron.

The Albuminate.—This was introduced in Europe in 1878, but met with but little favor in this country. It is now being manufactured and pushed here, however.[1]

Dumont, in *Le Progress Medicale*, claimed that albuminate of iron was more readily assimilable than other salts of the metal, seldom causing gastric disorders. Dumont's claims have not, we believe, been sufficiently substantiated.

The Peptonate.—This form has also met with but little favor, being, like the albuminate, a weak and not readily assimilable preparation.

Ferrum Saccharatum.—A sweet-tasting preparation, and at one time used considerably; but it fell into disrepute, and is scarcely known among the druggists of this country.

Levulose Ferride.—This resembles the old ferrum saccharatum, and leads one to ask if it is not the same preparation under a new name. Good reports have been made of its use, however. Dr. Aulde, in the *N. Y. Medical Record*, spoke very highly of it, and thought it especially adapted to children where iron was indicated, on account of its pleasant taste.

Dialized Iron.—This liquid preparation is supposed to contain 3 5 per cent. of iron, and at one time was freely prescribed.

Blair's Sons, pharmacists, in this city, claim to have been the first makers of dialized iron in this country.

The merits claimed for this form of iron were: No styptic taste or effect, and being neutral in reaction, would not blacken the teeth, also, being devoid of astringency, would not constipate. It was also said to be equal, if not superior to, the hydrated oxide of iron as an antidote in arsenical poisoning. From its character, and the ready manner in which it became a coagulated mass, I can readily understand why it should so act. It is, however, but a weak preparation of iron at the best.

Depaire says of it: "The action of dialized iron upon animal products forbid us to suppose, *a priori*, that it acts like other ferruginous preparations."

Bouchardet declared that "Theoretically, dialized iron must be regarded as an inert, or, at the best, but a very feeble, preparation of iron."

Persone stated that "It is completely insoluble in the gastric juices. When injected into a dog's stomach during active digestion, and an examination was made two hours after, flakes of oxide of iron were adherent to the undigested food, but not a trace of iron was discernible in either the gastric liquids or on the surface of the alimentary canal. Its inactivity may be inferred from its insolubility."

Dr. R V Mattison has shown that dialized iron is probably insoluble in the gastric secretions, and Prof. Stillé said that he had found it "utterly to fail in cases for which iron appeared to be the proper remedy, and which other preparations caused to speedily improve."

Others thought that they found marked improvement in cases of anæmia upon the administration of this form of iron. In 1878, Dr. Da Costa reported good success from the hypodermic use of dialized iron, using 15 ♏ at a time. Other observers of equal note found it unsuitable for hypodermic use. I find, upon inquiry at the prominent pharmacies, that this preparation is being seldom prescribed. Considering it from a chemical and pharmaceutical standpoint, it is surprising that it held its place as long as it did.

Malate of Iron.—This is readily prepared in solution, by macerating iron filings or small tacks in the expressed juice of sour apples until the reaction ceases. A preparation of ferrous malate, called extractum ferri pomatum, is officinal in some of the European "Pharmacopœias," and is to be found in some of our pharmacies. It is of pilular consistence, and contains a variable quantity of iron, sometimes as much as 8 per cent. I have used this extract in some cases, but did not find it of sufficient advantage over other preparations to continue its use.

A more convenient form in which to administer the malate would be by making it after the following formula:[1]

One thousand parts of sour-apple juice and 100 parts of precipitated sulphate of iron are macerated together for a week in a glass vessel, exposed to the sunlight. The liquid is then filtered. The filtrate is dialized, evaporated on a water-bath to the consistence of honey, 10 per cent. of sugar added, spread upon panes of glass and dried at a temperature not exceeding 45° C.

The scales thus obtained are greenish-yellow, soluble in water, and of an agreeable acidulous taste. Children and women are said to be fond of this preparation. Made in the form of tablets, this might, upon further investigation, prove to be a very valuable hematinic.

The Elixir of the Three Chlorides[2] is the name of a preparation of the chlorides of iron, mercury and arsenic which has met with much favor. Dr. I. N. Love speaks very highly of it, and there is no doubt but that in certain cases such a combination will be very effective, and one well worthy of more extended trial.

I used to prepare an elixir of iron and gentian which was highly appreciated by both physicians and patients, as follows: The simple elixir of gentian was first prepared, and to this was added the tincture of the chloride of iron, in the proportion of five minims to the fluid drachm, the styptic taste of the iron being overcome by the addition of eight to ten grains of the citrate of potassium to the fluid ounce.

The tincture of the chloride of iron is such a valuable preparation that we cannot afford to abandon it, and yet there are many cases in which its use is prohibited, owing to its styptic and astringent properties. Cannot some of our enterprising pharmaceutical chemists give us a form or modification of this old standard tincture deprived of its objectionable features, without impairing, in any way, its efficiency?

In the administration of the tincture of the chloride of iron, it must be remembered that 25 minims of the

[1] Made by Flexner Bros., St. Louis. (?)

[1] Bulletin of Pharmacy, May, 1891.

[2] Introduced by the house of Renz and Henry, Louisville, Kentucky.

tincture contains nearly 1 grain of the metal; that the total amount of iron existing in the whole mass of the blood of a healthy person does not exceed 2.48 grammes, or about 39 grains. It would take but a few such doses to introduce into the system an amount of iron in excess of the normal proportion, provided it was all assimilated.

Ferrum Sanguinis.—This preparation, introduced from France, is stated to be pure "haemoglobin," obtained from bullock's blood. It comes in pill form. While I have had no clinical experience with it, ferrum sanguinis may be a very good form of administering iron.

Salicylate of Iron.—We hear very little of this preparation. The question arises, that where a salicylate is indicated, would not a different combination be preferable?

The Succinate of the Peroxide of Iron.[1]—This, presented in the form of a palatable and pleasant elixir, would seem, from its chemical composition, to be almost an ideal preparation. The formula is $Fe_2H_2C_4H_4O_4$. As iron is, probably, essentially an oxygen carrier, a glance at the formula will show the importance of this recent addition to our ferruginous preparations. Being free from styptic taste or properties, non-astringent and palatable, parting with its oxygen readily when introduced into the system, and not deranging digestion, it will meet many cases where iron, while indicated, cannot be tolerated.

PHYSIOLOGICAL EFFECTS OF IRON.

1. *On Animals.*—According to our present understanding, the action of iron is to increase the development of the red blood corpuscles, furnishing them with oxygen, and rendering them fit vehicles for carrying oxygen to every part of the animal economy. It has also been shown that the animals in whose blood the proportion of iron reaches more nearly that of man, are the hog, dog, ox, and goose. The quantity may be increased by the proper administration of the drug.

2. *On Man.*—The action varies greatly and according to the preparation used. In large doses the drug is apt to derange the digestion, giving rise to oppression after eating, sometimes producing gastralgia and pyrosis; and, if continued, the dyspeptic symptoms increase.

Is iron a food, as many have claimed? For a long time it was supposed that none escaped from the body, although given for a long time; but this was disproved by Zaleski.[2] He experimented upon rabbits and kittens with the sodic tartrate of iron, obtaining some remarkable results, and reaching the conclusion that the liver was the excretory organ for this drug.

Skoortzoff, in Warsaw, from laboratory investigations regarding the influence of iron over the nitrogenous metabolism in the healthy body, gave the following conclusions:

1. Iron has no marked influence on nitrogenous metamorphosis in the healthy body.

2. The ingestion of iron in daily doses of $\frac{3}{10}$ to $\frac{1}{2}$ grain causes a very slight decrease in the assimilation of nitrogenous portions of the food.

3. After bleeding, the assimilation of nitrogenous substances increases, whether iron be used or not; but, if iron be used at this time, the hemoglobin is rapidly introduced, and the drug would seem to be of value in restoring the bodily weight.

[1] From the laboratory of Parke, Davis & Co., Detroit.

[2] *London Lancet*, July, 1888.

Bartholow says: "The sulphates, nitrates, and chlorides of iron are very astringent, and cause constipation. They coagulate blood, forming a tough magma. For intestinal hemorrhages, however, the astringent preparations of iron are almost useless, as they are converted into inert sulphides as they pass along the canal."

Iron, as well as all the metals, exerts a toxic effect upon the nerve centers—as well as upon the nerves themselves—and also upon the muscles. This applies especially to the insoluble forms of iron, and should be borne in mind in prescribing.

The liver can care for the drug in small doses; but large ones show a tendency to accumulate there, with consequent derangement.

It is supposed that iron, introduced into the system in an uncombined state, is again eliminated without being used.

Cappota, in *The St. Louis Med. Review*, reported some experiments made upon full-grown and healthy chickens, since in birds the circulation, the respiration, and heat production are more active, and on that account tissue changes are more rapid, and because their blood cells are better adapted to accurate and more complete examinations than that of mammalia. From such studies Cappota concludes that:

1. The lowered amount of hemoglobin and the histological changes of the blood depend, not upon the condition of the food, but simply upon the want of iron, since with this one cannot only avoid, but also improve, such conditions.

2. Iron given in a form uncombined with organic material, is taken up and assimilated by the animal organism. This view is justified, not only by the increase of hemoglobin, but also by the fact that the iron thus administered is used up in proportion to the amount previously withdrawn, and that this ceases as soon as the organism has obtained its full amount of iron.

Dr. Cressler, in the *Memphis Med. Monthly*, takes the view that iron given in erysipelas, takes into the blood the oxygen required, which, coming into direct contact with the streptococcus, causes their destruction.

From all the foregoing, it must be evident that we have something yet to learn regarding the physiological action of the drug under consideration.

THERAPEUTIC USES OF IRON.

Sée states that it should not be administered in pseudo-anæmia, *i. e.*, in those forms due to inanition or enervation, or caused by intoxication, or of a specific nature. He claims that the drug is fitted for true anæmia only.

It has been demonstrated that if iron does not improve the digestion and appetite, it is practically useless in anæmia.

In epilepsy, Bartholow considered iron hurtful, except as a bromide, in combination with the bromide of potassium.

In strumous enlargement of the cervical, inguinal, and mesenteric glands, and in rickets, iron is considered to be of great value.

In erysipelas its internal administration is of undoubted benefit. As a topical application the following formula, a favorite one with Prof. J. E. Garretson, is used successfully at the Medico-chirurgical Hospital:

℞.—Tr. ferri chloridi ..... f℥j.
Quiniæ sulphatis ..... ℥j.
Tr. cinchonæ ..... f℥ij.

M.—Sig. Paint the parts with the mixture until the skin remains perfectly black.

The application must be thorough; keep painting as long as any redness appears, and the germs being thus destroyed the disease is checked, and in a few days the black mask peels off, leaving the skin healthy.

In some cardiac affections, a combination of iron and digitalis is of marked benefit. This is particularly the case where there is dilatation without compensatory hypertrophy. Under such conditions the two drugs mentioned, given together, materially assist nature in establishing the compensation.

Diseases of the liver. Iron has been considered as being contra-indicated in hepatic affections, even when coexistent with anæmia. Later researches, however, reveal the fact that if the proper form of iron be used, and in proper doses, it is of great benefit in such conditions.

Iron is given in the following important diseases, the writers' names being given as authority:

Albuminuria, Waugh; anæmia, most authors; ascites, Niemeyer; carbuncle, Paget advises large doses, giving a drachm of the tincture every four hours; chlorosis, Niemeyer and others; cholera, E. McClellan uses the sulphate as a prophylactic in cholera epidemics; chorea, Wharton Sinkler, Radcliffe, Da Costa; diphtheria, Sir Morell McKenzie gives the tincture of the chloride in 30 minim doses to adults, and to children in proportion; dysentery, McLean; erysipelas, Garretson, Reynolds, etc.; hemoptysis, Bartholow says that inhalation of a spray of Monsel's solution will often arrest a hemorrhage at once. Da Costa sprays with a solution of the chloride of iron; neuralgia, Austie gives the tincture in doses of 30 to 40 minims. In subacute pleurisy, with effusion, Loomis gives iodide of iron, and in purpura hemorrhagia, Loomis and Sparks give the tincture of the perchloride in 15 to 20 minim doses, three times a day. Immerman and Waugh, however, state that iron is contra-indicated in this condition until some days after the hemorrhage ceases; spermatorrhœa, among other remedies, Gross gave the tincture of iron, combined with cantharides.

The writer, in reviewing the mass of testimony in medical literature, regarding the use of iron, comes to the following conclusion: That as iron, in some form, is as essential to the animal economy as food and air, some one of the various preparations offered will meet every case, if judiciously selected. To simply prescribe "iron" without regard to the existing conditions or complications, or the form to be administered, is utterly absurd.

I have recently tested a sample of the succinate of the peroxide of iron, and found it to be very beneficial in several cases where all other forms heretofore used positively disagreed. One patient was a lady very susceptible to iron, and who recognized its presence in prescriptions where I thought it impossible, but who took the elixir of the succinate readily, and with positive benefit. It did not constipate, but, on the contrary, stimulated peristalsis. This was noticed in other cases also. It would seem from its composition to be a very valuable addition to the list of hematinics, and is well worthy of a more extended trial.

AUGUST, 1891.

THE TREATMENT OF VIPER BITES.—The Paris Academy of Medicine has awarded the Orfila prize to Professor Kaufman, of the Alfort Veterinary School, for his discovery of a specific for viper bites. The treatment consists in bathing the wound with a solution of one part of chromic acid to one hundred of water.—*Ex.*

KERATITIS.[1]

BY F. W. FRANKHAUSER, M.D.

MR. PRESIDENT AND FELLOW-MEMBERS:—In presenting this paper on Keratitis I do not propose to bring all that is new, but to try to bring them in such a manner that we may all be able to treat this disease intelligently.

The cornea has a peculiar situation, being fitted as it were into the sclerotic coat of the eye, as a crystal in a watch. The last histological description gives it five membranes, but for our purpose we shall simply use two—Bowman's membrane and the membrane of Descemet, anterior and posterior. The substance in itself is of a modified connective tissue formation, united into bundles, and into lamella. Their general direction is parallel with the sclerotic, and are crossed or intersected by others crossing in different angles. The spaces thus formed are called the corneal corpuscles.

Keratitis is an inflammation of the cornea. It may be divided into phlyctenular, vascular, diffused, suppurative, and neuro-paralytic. As to cause, traumatic and idiopathic. As a sequelæ and undoubtedly tubercular.

Pathology of Keratitis.—The first sign of an inflammation of the cornea is opacity, development of blood-vessels, loss of substance, and formation of pus, with different degrees of destruction or proliferation of corneal corpuscles, and emigration of lymphoid cells, by the natural channels and by cell proliferation through the corneal tissue. The fibrillæ degenerate, and, by a collection of serum in the anterior chamber, the membrane of Bowman is destroyed in part, or total. The membrane of Descemet is more resistant; the inner lining may and often deos undergo fatty degeneration. The tissues of the cornea may soften and die *en masse.*

Where the tissues are destroyed an ulcer results. If the ulcer should perforate, the iris comes forward, by pressure of the contents of the eye-ball, and falls into the opening; and, if it remains, forms what is called anterior synechia. In very large ulcers the lens may be pushed forward, or even expelled.

Opacity of the cornea is due to the irregularity of structure in the repairing process. The repairing tissues are not distributed with that regularity, and thus a cicatrix results, which is generally indelible.

Symptoms of Keratitis.—Pain in the eye; pupils contracted; lachrymation; photophobia, or pain from light, radiating to different parts of the eye-ball and temporal region, and eventually the cervical region of the head; hyperæmia of the cornea, radiating in all directions from the inflammatory spot, into the sclerotica and conjunctiva; iris responding to light; opaque spots are soon visible; there are generally some chilly sensations early; some increase in temperature, with general depression of system.

In phlyctenular keratitis the opacity may not be larger than a point or head of a pin; it may be a solitary spot, or there may be a number of blood-vessels running into it; profuse lachrymation and photophobia occurring in the under-fed or in persons of a scrofulous or tubercular diathesis, or following some of the exanthematous diseases, as measles or scarlet fever, etc. They sometimes recur again and again. According to Ivanoff's investigations, the phlyctenular makes its appearance upon a nerve

[1] Read at the meeting of the Berks County Medical Society, at the residence of Dr. D. Webster Kupp, Gibraltar.

twig; finally, if not arrested, running into a gray ulcer. Following the epidemic of measles of last winter, there were a great many cases of phlyctenular keratitis, possibly caused by the depression of the system and the catarrhal symptoms which remained.

Vascular keratitis may result from a number of attacks of phlyctenular ulcers, and suddenly the whole cornea becomes hazy; the membrane of Bowman becomes roughened with a network of blood-vessels. Pain, lachrymation, photophobia not so bad, and is generally called panus. This form is often found in granular lids, and is no doubt often caused by the condition of the lids.

Keratitis Diffused; or, Parenchymatous Keratitis.—In this form there is no roughness, but appears like a smoky haze at the middle or margin of cornea, generally coming on suddenly, and spreading over the whole cornea in a few days. If it continues, the cornea becomes white, or of a bluish-white color.

It is generally constitutional. In children syphilis is often found to be the cause, the teeth showing an improper development. In adults it often accompanies the secondary eruptions of teeth.

Suppurative Keratitis.—As in other inflammations, so in the inflammation of the cornea, pus may be the result, even without an ulcer anteriorily, or of the superficial coat of the eye, pus may form in the anterior chamber; those are generally cases of an injury or of a tuberculous character, unless following an injury, always occurs in a system that is debilitated by disease, and may occur at all ages.

The presence of pus in the anterior chamber denotes a large influx of lymphoid cells, with proliferation of the corneal corpuscles.

Pus may appear in the anterior chamber in three ways:

The wandering cells force their way downward through the margin—usually in a whitish streak—and emerge through the meshes of the pectiniform ligament into the aqueous humor.

By perforation of the membrane of Descemet. By proliferation of the endothelium of the posterior surface, accompanied by a low grade of iritis, which also yields lymphoid cells. The latter usually accompanies paralysis of the fifth pair of nerves.

Keratitis supurans is always accompanied by severe pain in the eye of a lancinating character, often extending into the temporal region; photophobia is well marked; the pupil is contracted; there is generally a small pitting in the cornea, often near the center, and nearly always surrounded by haziness. The hypopyon makes its appearance by a yellow line at the base of the anterior chamber, and continues to raise.

Noyes, on "Diseases of the Eye," p. 187, says:

As long as the formation of pus continues, or until it has an exit, or it is absorbed.

The cornea becomes denuded of its epithelium, and the tissues slough.

If perforation of the cornea occurs, the iris falls into the opening of the cornea caused by the pressure of the contents of the eye-ball. If the iris remains in the opening it soon becomes adherent.

Neuro-paralytic and bulbous cornea are rare, and need no mention here.

Treatment.—In mild cases of inflammation of the cornea: Atropine, grs. j to ij–f℥j of water, two drops three or four times daily dropped into the eye. Boracic acid, grs. v to f℥j of water, as eye-wash several times daily. Bathing with hot water, or dry heat applied for ten minutes at a time, several times a day, will generally bring it under control; the eye, in the meantime, being shaded with a patch or smoked glass.

If any constitutional disturbances occur, they will need attention.

All secretions should be watched, and treated if deficient.

In phlyctenular keratitis following measles, the catarrhal symptoms will need treatment, as a number of cases following measles would not get well until the coryza of the nose was brought under control.

Where the disease is not brought on by injury or from a strumous disposition, it will generally yield to simple treatment.

But where inflammation of the cornea follows any of the former diseases, the treatment is not always an easy matter. If the acute stage has passed, ℞.—Hydrarg. ox. flav., grs. j–℥j, of ointment; a small amount used twice a day; or, hydrarg. chloridi mite., dusted into the eye once a day.

But where an ulcer forms near the center, atropine, grs. ij to aqua, f℥j; cocaine, grs. iv, several drops four times daily, to prevent the iris from falling into the perforation of the cornea. Should perforation occur, and the ulcer being near the margin, then eserine, grs. ij; water, f℥j; two to five drops three times daily, to contract the pupil.

Keratitis Supurans.—This is often due to an injury, or from a lowered state of vitality.

As to treatment of the ulcer, the system is generally at fault, and constitutional treatment is needed in all cases early; quinine in large doses combined with morphine, to prevent the immigrating of white corpuscles and relieve pain. Later quinine only in tonic doses, besides the local treatment of atropia, cocaine, or eserine. As all suppurating surfaces are covered with a pyogenic membrane filled with germs, so is suppurative keratitis. First, then, is to arrest suppuration, establish drainage, or absorption of the pus, and bring the sloughing tissues to a healthy condition. If no hypopyon has formed, the ulcer touched with a pointed stick of argentum nitras, hot applications, or the ulcer may be curetted with a small blunt curette, once daily until the tissues cease to slough. The actual cautery has strong advocates. As early as 1873, Martinache,[1] of San Francisco, recommended the actual cautery. Later the results of Gayet, Grandmont, Martin, Fuchs, Nieden, Schweigger, Knapp, and Gruening, placed this treatment upon a secure basis. Nieden's observation on more than one hundred cases, in addition to serpent and rodent ulcers in scrofulous abscesses both marginal and central, vesicular keratitis, and parenchymatous corneal abscess.

(1.) Again, Dr. De Schweinitz's[2] observations of about thirty cases, including:

1. Small central ulcers in badly fed children, either due to neglect or imperfect treatment tending to form abscesses.

2. Small central ulcers in scrofulous patients, the ulcer having a slightly turbid base, chronic in character. In all cases there were the appearances of former granular lids.

3. Phlyctenular ulcers, beginning with small pustules, beginning at the corneal border speedily ulcerating, and surrounding themselves with a yellow area of infiltration, with a strong tendency to perforation.

4. Infecting or sloughing ulcers with hypopyon.

5. Marginal ring ulcers.

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[1] *Pacific Medical and Surgical Journal* of 1873.

[2] TIMES AND REGISTER, March 21, 1891.

6. Herpes of the cornea, associated with herpes zoster ophthalmicus. Dr. De Schweinitz's experience has been only with the actual cautery, using a probe made of platinum, or a steel needle about the size a knitting needle according to the location of the ulcer, either atropine or eserine with cocaine. A Bunsen burner being used to heat the probe red hot, all of the sloughing tissues gently but thoroughly cauterized, then washing out the parts with boracic acid, a drop of atropine in solution, and bandage. Others preferring the galvano cautery; as your loop is heated it must be kept under control by the operator without removing it from the eye. I myself have not had any experience with either; in suppuration of the cornea, I should prefer the galvano cautery, as its use in the nose and pharynx have been in my hands attended with great success. Others[1] preferring the bichloride of mercury after curetting the ulcer thoroughly. The ulcer is washed with bichloride of mercury 1–1,000 or 1–3,000; following the operation, the eye is washed with bichloride of mercury 1–5,000 every two or three hours. This I have used a number of times successfully.

The plan which I have used a number of times in suppuration of the cornea accompanied with hypopyon, is to make an incision at the cornea-sclerotic junction, and leave out the secretion, which I think is the best for drainage. After washing it out with acidum boracicum, grs. x–f℥j water, the eye is covered with a pad of absorbent cotton wet in the solution of boracic acid, and changed every hour, using atropine or eserine as before indicated. Now, I would use hydrogen peroxide in 10 per cent. solution.

Allow me, if you please, to give you the history of a few cases.

L. Z., aged thirty-six, a carpenter by trade in the Philadelphia and Reading car shops, having been struck by a broken pine knot as he was working with a saw, came to my office June 24, 1889, twelve days after the accident. Had been under another oculist's care for ten days, who told him he could go to work. The second day following, he saw his family physician, who referred him to me. There was a large ulcer near center of the cornea, of left eye deep, excavated, sloughing, and hazy iris contracted, conjunctiva congested; pain in eye and temporal region of left side, lachrymation, photophobia, anterior chamber filled to the middle of the cornea with a purulent pus. I proposed making an incision at the cornea-sclerotic junction, and evacuating the pus at once, but as he had not slept the previous night, he did not consent to the evacuation.

The following morning I made an incision at the cornea sclerotic junction, and removed nearly one-half drachm of tough, purulent lymph, resembling pus, washing it with hydrarg. corosivum, 1–3,000, when the eye began to improve; washing with hot water every hour, and bichloride solutions every three hours; but after three days there was more accumulation, which was removed in the same way, after which the improvement was steady until recovery, leaving a dense leucoma, interfering with distant vision, but giving him fair working vision.

Mrs. E. H., aged thirty two, had amblyopia of left eye since childhood. Immediately following confinement, had an attack of keratitis supuruns; but as she could not go to see an oculist at that time, not much was done for it. As soon as she was able, her physician referred her to me, and two weeks following labor she came to see me. I found a large sloughing ulcer covering the center of cornea, excavated, ragged edges, with pus in the anterior chamber, reaching to the middle of the cornea. The pus was at once removed, by the cornea sclerotic incision, washed out with bichloride sol., 1–3,000. With supporting treatment, she made a slow but steady recovery, but with a large dense leucoma, with barely any vision. I advised her, if it gave her any more trouble, to have the eye-ball removed. Two months later, being away from home on a visit, she was suddenly seized with the trouble again, and had the eye-ball removed. The right eye has since excellent vision, and the patient is about forty pounds heavier than she had ever been before.

Case third: J. R., aged seventeen, came to my office July, 1890. Mother died of tuberculosis. Has posterior spinal curvature; ulcer in each eye for at least ten days, and after "powwowing" without success, went to see an oculist. A large ulcer was found on each cornea, just below center, photophobia, lids swollen, pain, conjunctiva congested, general health debilitated.

The eyes were treated with atropia, gr. i–f℥ij, three times daily. Hot water applications every hour. Internally, syrupus acidum hydriodicum, f℥ss, four times daily. In less than ten days the ulceration was under control, leaving a small leucoma on each eye.

T. T. and W. T., aged three and five respectively, brothers, had an attack of phlyctenular keratitis, following measles; opaque spots on center of each eye, conjunctiva congested, pupils contracted, lids swollen, photophobia and pain well marked, coryza of both nostrils, discharging a purulent serum, excoriating wherever it came in contact.

℞.—Atropia..... gr. j.
Cocaine..... gr. iv.
Aquæ..... f℥j.
M.—S. Drop in eyes four times daily.

Also,

℞.—Syrupus ferri iodidi..... gtt. v.
Tr. Belladonna..... gtt. ij.
Four times daily.

Keeping the eyes shaded gave me excellent results. In a number of cases of phlyctenular keratitis, during last spring, I noticed that as the coryza improved so would the keratitis, even if it were only on one side.

I have at present under my care a lady suffering from keratitis diffusa, caused, I think, by an irritable ovary.

Mrs. R., aged twenty-eight, has three children; two miscarriages in last two years. First noticed trouble in right eye two years ago; since has not been well. Has gone the rounds of several doctors. I saw her first two weeks ago. Cornea hazy, pupil contracted, zone of blood-vessels in all directions, lids swollen, photophobia, conjunctiva swollen and congested, intense pain, loss of appetite, and is losing flesh.

Whilst the keratitis will improve, it will invariably get worse during menstruation.

On examination, found right ovary very painful to touch; os lacerated and womb prolapsed. Locally, I am treating the eye with

℞.—Atropia..... grs. ij.
Cocaine..... grs. iv.
Aquæ..... ℥j.
M.—S. Two drops in the eye four times daily.

With large doses of quinine and pulsatilla, in 5-drop doses, four times daily, the tender ovary is improving, as is also the inflammation of the eye.

[1] Dr. E. W. Jackson, TIMES AND REGISTER, October 4, 1890.

In the discussion that followed, Drs. Beaver, Carpenter, of Pottsville, and Cleaver, participated—

Dr. D. Webster Kupp read a paper on "Puerperal Septicæmia."

Drs. Bachman, Carpenter, S. L. Kurtz, Landis and Beaver, taking part in the discussion.

The Society then adjourned to the dining-room to partake of a feast prepared by the hostess, Mrs. Dr. Kupp. During the feasting there were a number of toasts, responded to by Drs. S. L. Kurtz, Carpenter, D. B. Beaver, and Bachman—a symposium in which Israel and Samuel were the organons.

After which the Society adjourned, all being well pleased with the trip to Gibraltar.

THE TEMPERANCE QUESTION.[1]

By N. S. DAVIS, M.D.

MEMBERS OF THE MEDICAL PROFESSION AND FELLOW CITIZENS: We have assembled here and now for the purpose of considering one of the most important subjects that can engage the attention of an American citizen. From the most accurate sources of information available, I learn that during the year 1890 more than 80,000,000 gallons of distilled spirits, 40,000,000 gallons of wine and 800,000,000 gallons of malt liquor were consumed in the United States, making a total of fermented liquors and distilled spirits of 920,000,000 gallons. From the same sources it is ascertained that about 10,000,000 gallons of distilled spirits were consumed in the arts, manufactures and medicine during the same year, leaving the amount consumed for drinking purposes 910,000,000 gallons, at a cost to the consumers of more than $800,000,000, or about $13 per head for the entire population. During the same year, 1890, according to a carefully prepared statement in the London *Times*, the amount of distilled spirits consumed in Great Britain was 38,324,000 gallons; of wines, 30,000,000, and of beer, 1,124,956,000 gallons, making a total of 1,193,298,000 gallons at a cost to the consumers of more than $697,000,000. If we deduct from the total of distilled spirits the same ratio as is used in the arts, manufactures, etc., in this country, it will leave the amount paid for these drinks $632,000,000, or more than $16 per head for the entire population of that country.

If we add to the $800,000,000 paid in our country annually, for intoxicating drinks, the value of the time lost by its effects on those who drink it, in stopping their work, in inducing sickness and in increasing both crime and pauperism, we shall have an aggregate of indirect cost of much more than another $800,000,000, or a total bill resulting from the use of intoxicating drinks in this country of more than $1,600,000,000 in a single year.

And what does the consumer get for all this enormous pecuniary expenditure? Does it bring a single item of clothing for himself, his wife, or his children? Does it take the place of food so that he or his family needs less provisions or can get board at less price per day or week? Does it strengthen him in body and mind and thereby enable him to do more work and do it better? Does it promote his physical health, sharpen his intellect and elevate his morals? Is there an intelligent man or woman in this audience, or anywhere in this country, who can conscientiously answer any of these questions in the affirmative? Certainly not. That it furnishes neither clothing nor food is shown by the thousands of wasted fortunes, impoverished families and ragged, homeless or worse than homeless children that follow the long line of consumers, or crowd the hovels, alleys, poor houses and asylums of every part of our broad land.

That it does not strengthen the consumer either in body or mind, enable him to do more or better work, is shown by a comparison of the personal condition and labor results of the liquor consumers with the total abstainers, side by side, in every field of human industry, in every climate, and in every grade of society. Wherever large numbers of men are engaged in the same work, subjected to just the same conditions, but a part of them taking the ordinary allowance of fermented or distilled drinks and the other part totally abstaining from the same, careful examinations have shown that the former lose more days from sickness and accomplish notably less every month than the latter. This may be verified by the examination of the records of every large manufacturing establishment, railroad or other corporation, or even social benefit organization, in which records are regularly kept of the time lost by sickness or otherwise, and of the amount of work done by each person. The same results are shown even more strikingly by an examination of the official reports of the Registrar-General of the British Armies both at home and in the Indies, as well as by the records of our own armies from the period of the War for Independence to the present time. And if you extend your inquiry to the comparative rates of mortality of the alcohol consumers and the total abstainers; the vital statistics of every city or country where the previous occupations and habits of the descendants are given; the books of every life insurance company in which the distinction between moderate drinkers and total abstainers is noted, and the statistics of such social and mutual benefit organizations as the Odd Fellows and Knights of Pythias (which do not prohibit moderate drink) with those of the Rechabites and Sons of Temperance (that do require total abstinence), you will find the ratio of mortality invariably much higher in the former than in the latter. That the drinking of alcohol liquids does not sharpen the drinker's intellect or improve his morals is most strikingly shown in the personal history of those who crowd our hospitals and asylums for the sick, insane and demented; who nightly fill the places specially established for the sale of these liquids and make night hideous with revelry, crime and bloodshed, and who fill our police stations, criminal courts, reformatories and penitentiaries with their enforced presence.

If all this is true, and the 910,000,000 gallons of fermented and distilled liquors drank in this country annually, at a cost of $1,600,000,000 or $2,000,000,000, bring neither food, clothing, shelter, health nor morality to the drinkers or to those dependent upon them, but instead poverty, privation, sickness, degradation, crimes and deaths, why do they continue to be used?

This is the one all-important question of the hour, the one that imperiously demands the full consideration of every intelligent citizen, and more especially that of every physician and guardian of the public health and happiness.

Why does an intelligent and free people continue to spend such enormous sums of money for drinks that so plainly bring nothing but evil return? I answer: First, because of the erroneous education of the greater portion of the people in regard to the true nature and effects of alcoholic drinks when taken into the human system, and, second, because of their

[1] A paper read before the International Congress on Staten Island, N. Y., July 14, 1891.

power to pervert the sensibility of the brain and nervous system, and thereby develop the most fascinating and persistent mental delusions.

A large majority of the inhabitants of every country receive the most influential and enduring part of their education not in the school-room nor from books, but from the opinions, maxims and practices that they hear and see from infancy to adult age in the family, on the street and in the social circles of the neighborhood. From a very early period in the history of these drinks, before chemistry had separated and revealed the nature ot the active ingredient that pervades them all, the people, judging only from the sensations and actions induced by their use, were very generally persuaded to regard them as stimulating, warming, soothing and restorative. Consequently they speedily found their way into almost every household in Christendom, and were ever ready to relieve the baby's colic, to enable the mother to give more milk, to relieve the father's weariness, and to prevent the boys and girls from 'taking colds' when exposed to wet or cold weather; and, of course, doctors, priests and people all united in calling them tonics, stimulants and restoratives for the body and soothing exhilarants for the mind. And it is true that these same designations and the ideas conveyed by them are still dominant in the family circles, the highways and the newspapers of this and other countries. Even the great majority of medical men still contribute their full share to the support and perpetuation of these very general and destructive popular errors, by habitually using the same language and sanctioning the same practices regarding them.

I call them destructive popular errors advisedly, because the abundant results of their use in every circle or grade of human society, and because the most rigorous, varied and skilful scientific investigations have both demonstrated that no form of alcoholic drink is capable of either warming, strengthening, nourishing or sustaining the life of any human being. I presume many of those who are listening to me will regard this as an extravagant statement, more especially as they remember the many nursery and newspaper stories they have heard concerning sick persons who were alleged to have been kept alive on nothing but wine, brandy or whiskey.

The falsity of all such stories is made apparent by the fact that nineteen-twentieths of all the alcoholic drinks given to the sick are given in connection with sugar, milk, eggs or meat broths, which furnish the nutriment and would support the patients better if given with the same perseverance without the alcohol than with it. It is true that chemical analysis detects the existence of some gum, sugar, and starch or fecula in the fermented liquids, beer and wine, which may be classed as nutriment. But the proportion is so small as to be of no appreciable value. Baron Liebig, one of the most eminent chemists of Germany, has left on record the statement that "If a man drinks daily eight or ten quarts of the best Bavarian beer, in the course of twelve months he will have taken into his system the nutritive constituents contained in a five-pound loaf of bread."

If a man must take a whole year and drink twenty-three barrels of beer to get into his system the 'nutritive constituents contained in a five-pound loaf of bread.' It is certainly not sufficient to be worthy of the slightest consideration as food. But, if you keep in mind the fact also, that the person who drinks at retail the twenty-three barrels of beer at 5 cents a pint, pays about $300 for it, and takes into his system during the same time, about one barrel of absolute alcohol, you will be able to see clearly the supreme folly of calling malt liquors and wine nourishment. The only ingredient in the various malt liquors, wines, and distilled spirits that is capable of exerting any important influence on the living human system is the alcohol they contain. This alcohol is exclusively the product of vinous fermentation, a retrograde chemical process by which sugar or saccharine matter is converted into alcohol, averaging in beers 4 per cent. and rising in wines to 15 per cent., and in the distilled liquors to 50 or 60 per cent. Consequently those persons in this country who drank the 70,000,000 gallons of distilled spirits, the 40,000,000 gallons of wine, and the 800,000,000 gallons of malt liquors during the year 1890, received into their stomachs and blood not less than 80,000,000 gallons of absolute alcohol. And now comes the question of more importance to the human race than any other of a temporal nature, namely, what are the actual effects of this alcohol on the living human system?

By all chemists and other scientific men, it is classed as an active poison capable of speedily destroying life when taken in sufficient doses; and if taken pure or undiluted, it destroys the vitality of the tissues with which it comes in contact as readily as creosote or pure carbolic acid. When largely diluted with water, as it is in all the varieties of fermented and distilled liquids, and taken into the stomach, it is rapidly imbibed or taken up by the capillary vessels and carried into the venous blood, without having undergone any digestion or change in the stomach. With the blood it is carried to every part, and made to penetrate every tissue of the living body, where it has been detected by proper chemical tests as unchanged alcohol, until it has been removed through the natural process of elimination, or lost its identity by molecular combination with the albuminous elements of the blood and tissues for which it has a strong affinity.

The most varied and painstaking experiments of chemists and physiologists, both in this country and Europe, have shown conclusively that the presence of alcohol in the blood diminishes the amount of oxygen taken up through the air-cells of the lungs; retards the molecular or metabolic changes of both nutrition and waste throughout the whole system, and diminishes the sensibility and action of nervous structures, in direct proportion to the quantity of the alcohol present. By its strong affinity for water and albumen, with which it readily unites in all proportions, it so alters the hemaglobin of the blood as to lessen its power to take the oxygen from the air-cells of the lungs, and carry it as oxyhemaglobin to all the tissues of the body; and by the same affinity it retards all atomic or molecular changes in the muscular, secretory, and nervous structures; and in the same ratio it diminishes the elimination of carbon-dioxide, urea, phosphates, heat, and nerve force. In other words, its presence diminishes all the physical phenomena of life.

These direct effects of alcohol, as demonstrated by rigid experimental inquiries, are in perfect harmony with the phenomena presented by their use in all the grades and conditions of human society. The diminution of nerve sensibility, developed in proportion to the quantity of alcohol taken, may be seen in all stages, from simple exemption from all feeling of fatigue, pain and sense of weight as exhibited by ease, buoyancy, hilarity, etc., to that of complete unconsciousness and loss of muscular power. It is this anæsthetic effect of the alcohol that has led to all the popular errors and contradictory uses which

have proved so destructive to human health and happiness. It has long been one of the noted paradoxes of human action, that the same individual would resort to the use of the same alcoholic drink to warm him in winter, to protect him from the heat in summer, to strengthen him when weak and weary, and to soothe and cheer him when afflicted in body or mind. From the facts already stated in regard to the action of alcohol on the constituents of the blood and tissues, all this is easily explained. The alcoholic drink does not relieve the individual from cold by increasing his temperature, nor from heat by cooling him, nor from weakness and exhaustion by nourishing his tissues, nor yet from affliction by increasing his nerve force, but simply by diminishing the sensibility of the brain and nerves, and thereby lessening his consciousness of impressions of all kinds, whether from heat or cold, weariness or pain. In other words, the alcohol by its presence does not in any degree lessen the effects of the evils to which he is exposed, but directly diminishes his consciousness of their existence, and thereby impairs his judgment concerning the degree of their effects upon him. Well did the wise man of old say that "Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise."

I say then, as I have repeatedly said on other occasions, that from all the facts hitherto adduced, whether from accurate experimental investigations in different countries, from the pathological results developed in the most scientific societies, from the most reliable statistics of sickness and mortality, as influenced by occupations and social habits, or from the life insurance records kept on a uniform basis through periods of ten, twenty, thirty, or even forty years, it is clearly shown that alcohol when taken into the human system not only acts upon the nervous system perverting its sensibility, and if increased in quantity, causing intoxication or insensibility, but it also, even in small quantities, lessens the oxygenation and decarbonization of the blood and retards the molecular changes in the structures of the body. And when these effects are continued through months and years, as in the most temperate class of drinkers, they lead to permanent structural changes, most prominently in the liver, kidneys, stomach, heart, blood-vessels and nerve structures, and lessen the natural duration of life in the aggregate from ten to fifteen years. Consequently there is no greater or more destructive error existing in the public mind than the belief that the use of fermented and distilled drinks does no harm so long as they do not intoxicate.

Another popular error, but little less mischievous, is the opinion that the substitution of the different varieties of beer and wine in the place of distilled liquors promotes temperance and lessens the evil effects of alcohol on the health and morals of those who use them. Accurate investigations show that beer and wine-drinkers generally consume more alcohol per man than the spirit drinkers; and while they are not as often intoxicated they suffer fully as much from diseases and premature death as do those who use distilled spirits. Again, the beer-drinker drinks more nearly every day, and thereby keeps some alcohol in his blood more constantly; while a large percentage of spirit drinkers drink only periodically, leaving considerable intervals of absence, during which the tissues regain nearly their natural condition. The more constant and persistent is the presence of alcohol in the blood and the tissues even in moderate quantity, the more certainly does it lead to perverted and degenerative changes in the tissues, ending in renal and hepatic dropsies, cardiac failures, gout, apoplexy and paralysis.

If the foregoing views regarding the effects of alcoholic liquids on the human system in health are correct, what can we say concerning their value as remedies for the treatment of disease? If it be true that the alcohol they contain acts directly upon the corpuscular elements of the blood, and so far diminishes the metabolic processes of nutrition and disintegration as to lessen nerve sensibility and heat production and favor tissue degenerations, their rational application in the treatment of any form of disease must be very limited.

And yet the same errors and delusions concerning their use in the treatment of diseases and accidents are entertained and daily acted upon by a large majority of medical men as are entertained by the non-professional part of the public.

Throughout the greater part of our medical literature they are represented as stimulating and restorative, capable of increasing the force and efficiency of the circulation, and of conserving the normal living tissues by diminishing their waste; and hence they are the first to be resorted to in all cases of sudden exhaustion, faintness or shock, the last to be given to the dying, and the most constant remedies through the most important and protracted acute general diseases. Indeed, it is this position and practice of the profession that constitutes at the present time the strongest influence in support of all the popular though erroneous and destructive drinking customs of the people. The same anæsthetic properties of the alcohol that render the laboring man less conscious of the cold or heat or weariness, also render the sick man less conscious of suffering, either mental or physical, and thereby deceive both him and his physician by the appearance temporarily of more comfort. But if administered during the progress of fevers or acute general diseases, while it thus quiets the patient's restlessness and lessens his consciousness of suffering, it also directly diminishes the vaso-motor and excito-motor nerve force with slight reduction of temperature and steadily diminishes both the tissue metabolism and excretory products, thereby favoring the retention in the system of both the specific causes of disease and the natural excretory materials that should have been eliminated through the skin, lungs, kidneys and other glandular organs. Although the immediate effect of the remedy is thus to give the patient an appearance of more comfort, the continued dulling or anæsthetic effect on the nervous centers, the diminished oxygenation of the blood, and the continued retention of morbific and excretory products all serve to protract the disease, increase molecular degeneration and add to the number of fatal results.

I am well aware that the foregoing views, founded on the results of numerous and varied researches and well known physiological laws, and corroborated by a wide clinical experience, are in direct conflict with the very generally accepted doctrine that alcohol is a cardiac tonic, capable of increasing the force and efficiency of the circulation, and therefore of great value in the treatment of the lower grades of general fevers. But there have been many generally accepted doctrines in the history of medicine that have proved fallacious. And the more recent experiments of Prof. Martin, Sidney Ringer, and Sainsbury, Reichert, H. C. Wood, and others have as clearly demonstrated that the presence of alcohol in the blood as certainly diminishes the sensibility of the vaso-motor and cardiac nerves in proportion to its quan-

tity until the heart stops paralyzed, as that two and two make four.

After an ample clinical field of observation in both private and hospital practice for more than fifty years, and a continuous study of our medical literature, I am prepared to maintain the position that the ratio of mortality from all the acute general diseases has increased in direct proportion to the quantity of alcoholic remedies administered during their treatment. How can we reasonably expect any other result from the use of an agent that so directly and uniformly diminishes the cerebral, respiratory, cardiac, and metabolic functions of the living human body? Both the popular and professional beliefs in the efficiency of alcoholic liquids for relieving exhaustion, faintness, shock, etc., are equally fallacious. All these conditions are temporary, and are rapidly recovered from by simply the recumbent position and free access to fresh air. Ninety-and-nine out of every hundred of such cases pass the crisis and begin to revive before the attendants have time to apply any remedies, and when they do not, the sprinkling of cold water on the face and the vapor of camphor or carbonate of ammonia to the nostrils are the most efficacious remedies, and leave none of the secondary evil effects of brandy, whiskey, or wine. Indeed, whenever a person affected by sudden exhaustion or syncope is able to swallow wine or whiskey, he is in no immediate danger of dying; and yet the recovery is always attributed to the last remedy given, even though its real influence may have been injurious to the patient. Nothing could more clearly demonstrate the power of alcohol to paralyze both the respiratory and cardiac organs than the experiments detailed by Dr. H. C. Wood, in his address to the recent International Medical Congress at Berlin on the subject of anæsthesia.

But without further taxing your patience with the details of investigations and statistical results, I will answer three of the questions proposed for discussion by this assembly, by saying:

1. That alcohol is a poison; or, in the words of Dr. Joseph Frank Payne, Vice-President of the Pathological Society of London, that "the action of alcohol on tissue or tissue elements is threefold—(1) as a functional poison; (2) as a tissue poison or destructive; (3) as a checker of oxidation."

2. That alcohol is in no proper sense a food, either direct or indirect.

3. There are no proper or necessary uses of alcohol as a medicine, except by the chemist and pharmacist in the manufacture and preparation of drugs. It is true that a physician can make the anæsthetic properties of alcohol available for the temporary relief of pain and the induction of sleep, but it is equally true that he has many other remedies more efficient for those purposes and less objectionable than the alcohol; consequently, the use of the latter is neither necessary nor proper.

I wish to say further to the members of that most important and humane profession, in whose ranks I have diligently labored for more than half a century, that if you, one and all, will patiently and boldly verify the truth of these several propositions as I have done, by acting in accordance with them at the bedside of the sick, you will not only soon realize a marked diminution in the ratio of mortality from all those diseases for which you have heretofore prescribed alcoholic liquors, but by uniformly characterizing such liquors as depressing, paralyzing, and poisonous, instead of stimulating and tonic whenever they are alluded to, you will save many thousands from death annually, and do more towards banishing the terribly destructive habit of liquor-drinking from every circle of human society in one decade than has been accomplished by legislation in a century past. By thus quietly and persistently designating all the various fermented and distilled drinks simply as diluted poisons capable of impairing cerebral and nerve sensibility, muscular force, metabolic tissue changes, and secretory activity, in proportion to the quantity taken, you will more rapidly and effectually educate the people correctly on this all important subject than can be done by any other agency. You, more than any other class of persons, have free access to the individuals and families of every grade of human society. It is to you that all classes look for guidance in all matters relating to the preservation of health and the prolongation of life. Not only the common language you use in relation to alcoholic liquors, but your individual practices also, are capable of exerting a mighty influence over the maxims and habits of all other classes. And it must be remembered that in proportion as the influence of your precepts and your practices is great, so is your individual responsibility for actively exerting that influence in the right direction.

CHLOROFORM AND ITS ACCIDENTS.—In reference to the recent increase in the number of deaths during the administration of chloroform, Mr. Alfred Hy. Mason, Agent for the Warrington Chemical Company, writes:

"It is not in my province to discuss any particulars in reference to the increased mortality in cases where chloroform has been administered. All manufacturers are more or less interested in such cases; but there is little doubt in my mind that all the chloroform which is manufactured in this country is chemically pure, in so far that it answers to all the requirements of the "British Pharmacopœa," and is certainly suitable for anæsthetic purposes when it leaves the manufacturer; but I wish to lay down definitely the fact that when once such an article has been handed to the distributor, the responsibility of the manufacturer ceases absolutely. It is the custom with most of the authorities of infirmaries, and such institutions, to send out tenders for their half-yearly supplies of drugs; amongst these chloroform is named. After prices are approved, an order is given at once for the whole six months' supply. An average order for a fair-sized institution would be about twelve Winchester quarts of chloroform. When required for use, one of these bottles is put upon the dispensary shelf, and used indiscriminately for all purposes, as the dispenser has calls for it."

He suggests that in every case where an anæsthetist requires chloroform, he insists upon having an unopened quarter of a pound bottle, with the manufacturer's label and band upon it, takes from it what he requires for the operation, and gives instructions for what remains in the bottle in every instance to be used up in the dispensary for other purposes. Such a bottle of pure chloroform would cost 1 shilling at the outside, bottle included; and this arrangement, if carried out, would be a protection to the manufacturer, and give the operator better assurance and security that no change could possibly have taken place in the chloroform, either from lengthy exposure or frequent unstoppering of the bottle.—*Hospital Gazette.*

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ALCOHOL IN MEDICINE.

THIRTY years ago alcohol was one of the most popular and trusted remedies in medicine. To-day it is regarded with great suspicion and doubt. Ten years ago several eminent men in both Europe and this country began to question the value of alcohol, and to demand some reasons for its use in disease. A reaction followed, which has been gathering force and increasing up to this time. To-day all scientific study agree on this fact: that alcohol is an anæsthetic; beyond this all is confusion and doubt.

Laboratory theories and clinical experience vary widely. Diseases in which alcohol was thought to be an essential remedy, recover as quickly without alcohol and by the use of other means.

Many excellent practitioners assert that the mortality is less, and the convalescence more certain, from non-alcoholic treatment. This experience is increasing in all directions among the active working men of the profession, and is the result of observation, above all sentiment or temperance influence. In England it has developed into a temperance hospital, in which alcohol is rarely used as a medicine. It is seen in the withdrawal of spirits as medicine in most of the workhouse hospitals, and the formation of a medical society to study the use and abuse of alcoholic remedies. In this country this same doubt of the value of alcohol has at length been organized into the Medical Temperance Society, which originated at Washington last May. These are the unmistakable hints of a great advance in scientific medicine. The experience and theories of the past are questioned; and if they are truths, abundant evidence will sustain them above all public opinion. If not, doubts and errors will increase with each advance of accurate study.

As a purely medical question, the position of alcohol and its value as a remedy is full of uncertainty and doubt. The Medical Temperance Society lately held a two-days' session, at Staten Island, to discuss this question of alcohol and its value. Dr. N. S. Davis, of Chicago, Ill., was President, and thirty-one papers were read and discussed. This was the first medical gathering to study this subject exclusively, ever held in this country. As it was to be expected, extreme views on both sides were defended. In a true scientific spirit, there was no restriction of personal opinions. One reader affirmed that alcohol was a "pure stimulant;" one declared it to be "the prince of tonics;" another urged its food value; another showed, from chemistry, that it was part of the body, and essential to health; another proved its great medical value in many diseases. On the other side, all these claims were denied, and the danger and worthlessness asserted with great energy. While a number of papers were read taking extreme views on both sides, the best sense of the convention was apparent in a number of thoughtful inquiries which asked the question, Why should alcohol vary so widely in its effects if it had medicinal value? Why should clinical facts so signally fail to sustain the theories which are urged to explain its physiological action? These and other clinical problems were offered, suggesting new and broader studies, and indicating that the entire question of alcohol in medicine was still unknown. This very confusion of practice and theory in the profession has aroused up the laity to discuss the subject, and take sides in societies and parties.

Nothing reflects more on medical men, who, instead of studying the subject and teaching the public, join themselves to parties and societies and defend the views of unreliable enthusiasts. It is equally reprehensible to defend old theories as settled facts and denounce others who disagree. A sad exhibition of this appeared in the *Medical Record*, in the editorial "On the Staten Island Meeting," naming it a "*Fanatical* Congress." After calling attention to some principles urged by Dr. Davis, of Chicago, it declared these to be "absolutely untrue;" then asserted that alcohol was a food in its "broad and rightful sense," and those who denied this were either *ignorant* or *untruthful*. Any general reading would have shown the writer of this editorial that many able and thorough scientific students had reached an exactly opposite conclusion, from evidence equally certain and entitled to the same credence. To accuse any one of fanaticism and dishonesty, who doubts the value of alcohol, is a serious charge for a medical journalist of this age, and reflects the suspicion of the same offence in the author. Dogmatism among medical men is deplorable, and dogmatic assumptions that alcohol is or is not of any value in disease is very unscientific, to say the least. The Staten Island meeting is only the beginning of an organized inquiry and effort to ascertain the facts concerning alcohol.

Of necessity the first studies will lack in accuracy and have a certain positiveism that springs from imperfect knowledge. The critics who condemn all such efforts, deserve more pity and sympathy for their lack of knowledge than the enthusiasts.

As in all other questions the truth cannot be reached except from accurate study, not of theories or assertions, but of cases and clinical experience. Use pure spirits, reduced by water, in clearly defined cases,

where its value has been asserted; then treat the same cases without it. Under the same conditions, experiment with healthy men, using spirits a certain definite time, and so on until the evidence has accumulated beyond all theory and speculation. Second-hand opinions of foreign authorities, and assertions of men prominent in the profession, are of no value except as hints, to be confirmed or denied from experiments which every physician can make for himself. If the conclusions of any observer are veritable facts, almost every physician can prove them beyond question. The great demand of to-day is a new study of the entire subject from a purely scientific point of view. The Medical Temperance Society has begun this work, and earnestly appeals to the entire profession for aid; not for theories, but facts and conclusions, based on clinical experience, which can be tested by every one. The profession must answer the public question: Has alcohol any food or medicinal value? clearly, conclusively and above theories and dogmatic assumptions.

D. D. CROTHERS, M.D.

Book Notices.

ADDRESSES: Papers and Discussions in the Section of Obstetrics and Diseases of Women at the Forty-second Annual Meeting of the American Medical Association, at Washington, D. C., May 5-8, 1891. Printed at the office of the Association. Chicago. 1891.

MINOR SURGERY AND BANDAGING, Including the Treatment of Fractures and Dislocations, Tracheotomy, Intubation of the Larynx, Ligations of Arteries and Amputations. By HENRY R. WHARTON, M.D., Demonstrator of Surgery and Lecturer on Surgical Diseases of Children in the University of Pennsylvania, etc. In one very handsome 12mo. volume of 491 pages, with 403 illustrations. Enameled cloth, $3.00. Philadelphia: Lea Brothers & Co. 1891.

The author's large experience in practice and teaching assures not only the completeness and authority of his work, but also the presentation of its matter in a form readily grasped. The book is exceptionally rich in illustrations, a notable feature being achieved by those in the section on bandaging, which are direct photographs from the living model. Modern surgery is well represented, as is indicated by the full directions given for the preparation and application of antiseptic dressings. Dr. Wharton has more than fulfilled the promise of his title by including the treatment of the most important emergencies. The volume is therefore not only a valuable instructor and guide for students and nurses, but it is well worthy of a convenient place on the practitioner's table, in view of the prompt advice it will afford in the large variety of emergencies which may require his attention.

THERAPEUTICS: Its Principles and Practice. By H. C. WOOD, M. D., LL.D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in the University of Pennsylvania. The eighth edition of A Treatise on Therapeutics, rearranged, rewritten and enlarged. J. B. Lippincott Company. Philadelphia and London: 1891. Cloth, $6.00.

As in former editions, so in this, Dr. Wood took special pains to make this book a treatise "up to the time." Among new articles we notice the whole subject of anæsthetics, articles upon cocaine, strophanthus, caffeine, hydrastine, paraldehyde, lead poisoning, sulphonal, aristol and chloralamid, and others. Dr. Wood has succeeded in presenting to the profession a book on therapeutics which keeps abreast of the times, and undoubtedly is second to none.

Pamphlets.

Artificial Modifications of Climate. By Dr. Samuel Wolfe, Professor of Physiology of the Medico-Chirurgical College. Reprint from the *Annals of Hygiene*, August, 1891.

Report of Committee on Ophthalmology and Otology. By Geo. H. Powers, M.D., Professor of Ophthalmology and Otology, Medical Department University of California, Chairman. Read before the Medical Society of the State of California, April 21, 1891. Reprint from *Pacific Medical Journal*.

The Medical Digest.

COCAINE AND ANTIPYRIN COMBINED AS A LOCAL ANÆSTHETIC.—Dr. E. Stuver (*Hygiea*), praises a solution of five parts of cocaine and fifteen parts of antipyrin in one hundred parts of water as a very efficacious local anæsthetic for minor surgical operations. The action of this mixture he states to be more intense and lasting longer than that of cocaine alone. It has also been successfully employed in cases of obstinate vomiting.—*Cincinnati Lancet-Clinic.*

RESECTION OF THE APEX OF THE LUNG.—M. Tuffier presented to the Surgical Society of Paris, a patient upon whom he had performed resection of the apex of the lung. It was affected with tuberculosis, the lesion appearing to be limited to that portion. The operation was performed by a simple incision through the intercostal space. The apex was drawn into the wound, and then resected by a ligature; and to avoid too great traction the borders of the pulmonary wound were united to the incision. The patient recovered without the least complication.

—*Journal de Medicine.*

UNCONTROLLABLE VOMITING OF PREGNANCY.—Drs. Henske and Gottschalk have found menthol efficacious in stopping the uncontrollable vomiting in pregnancy. Fifteen grains are dissolved in five ounces of distilled water, to which five drachms of rectified spirits are added. A tablespoonful of this mixture is given hourly till the vomiting ceases. The editor of the *Archives of Gynæcology* states that he had an opportunity of trying the efficacy of this mixture. Vomiting ceased after the fourth tablespoonful. Dr. Gottschalk reports two cases with similar results.

—*British Medical Journal.*

IRRITABLE HEART.—The treatment for muscular feebleness must include a liberal allowance of rest, alternated with regular—not severe—exercise. We would be afraid of Oertel's method of mountain-climbing, which he so strongly advises for weak hearts, preferring, on the contrary, more moderate exercise. As therapeutic agents for this condition, nux vomica, ergotine, and the chloride of barium in pill form have given us the most satisfactory results. A very good formula for the above is the following:

℞.—Ferri sulph. exsic. ..... ℥iiss.
Ext. nucis vomicæ ..... gr. xiij.
Ergotinæ ..... ℥iiss.
Barii chloridi ..... gr. x to xx.
M.—Fiat pil. No. 50.
Sig. One after each meal.

—Martin, *Kansas Med. Jour.*

OINTMENT FOR HEMORRHOIDS.—Audhoui recommends the following ointment for hemorrhoids:

℞.—Extract of belladonna..... 15 grs.
Extract of thebaia..... 15 grs.
Antipyrine..... 45 grs.
Mercury ointment..... 2½ drs.
Simple cerate..... 1 oz.

This is to be made into an ointment and applied to the inflamed hemorrhoids. Rectal injections of warm water are to be employed if there is constipation.

—*Medical News.*

TREATMENT OF RHUS POISONING WITH IPECAC.—Dr. W. S. Gilmore, of Sorgho, Ky. (*in Country Doctor*), recommends the following with confidence, having used it for six years without a failure:

℞.—Ipecac pulv..... ℥iij
Aquæ..... 1 pint.
M.—Sig. Apply freely to the affected part every three hours.

The heat, itching and pain are relieved as if by magic, and in the great majority of cases two or three applications are sufficient to produce a cure. The only difficulty that has been noticed is a slight cooking of the skin when the solution was too strong. That, however is easily obviated, as the weaker solutions seems as efficient as the stronger. He thinks it is as near a specific as we have in medicine.

—*Cincinnati Med. News.*

A NEW SUBSTITUTE FOR SANTONINE.—According to Dr. Coppola, santonine is not a true vermicide, its action on thread-worms being that of a convulsant only, causing movements very similar to those due to epilepsy. In this state, the worms are unable to coordinate their movements, and are easily expelled from the intestine by a purgative. Santonine also labors under other disadvantages—it is very easily absorbed by the mucous membrane of the gut, and it sometimes produces toxic effects. A much better vermicide is to be found in a compound of santonine, santoninoxyme, which he has recently prepared. This actually kills the worms, and is well borne in much larger doses than can be given of santonine. The best plan is to give, for two or three days, three times as large a quantity as is ordinarily prescribed of santonine, each dose being followed by a purgative.—*Hospital Gazette, London.*

FUNCTION OF THE TUBER CINEREUM.—Dr. Ott (*Journal of Nervous and Mental Diseases*, July, 1891) has two short papers on the function of the tuber cinereum. He believes that the thermotaxic and what is termed the "thermopolypnœic" center are one and the same, and are situated at the anterior end of the third ventricle. A rabbit was heated to produce polypnœa; the skull was opened and the tuber cinereum was damaged. It was always found that polypnœa ceased when this was done, but not by any experiment in which it was uninjured. Ott also concluded that it had thermotaxic functions. He found that puncture of the anterior end of the optic thalami must break the tuber cinereum to cause a rise of temperature. He considers it established that the thermogenetic centers are the caudate nucleus, and according to Hale White the grey matter of the septum lucidum and the grey matter in front of and beneath the caudate nucleus. Ott believes that there are thermo-inhibitory centers about the concrete and Sylvian fissures and polypnœic centers in the tuber cinereum.—*Supplement to the British Medical Journal.*

PROPHYLAXIS OF DIPHTHERIA.—Eliott, in the *Va. Med. Monthly*, says that he considers the different methods of prophylaxis, and advocates, as the best plan, the constant vaporization of turpentine in the house where diphtheria is present. Of the fifteen cases which the writer reports, in several families new cases developed where no turpentine was used; but in no family did a new case develop where the rooms were kept filled with the vapor of turpentine.

A similar result was obtained at the New York Infant Asylum, where the following formula was used:

℞.—Ac. carbolici ..... ℥j.
Ol. eucalypti ..... ℥j.
Spt. terebinth..... ℥viij.—M.

Add two tablespoonfuls to one quart of water in a pan with a broad surface, and maintain in a constant state of ebullition or simmering in the room occupied by the patient.—*Archives of Pediatrics.*

THE CAUSE AND CURE OF BALDNESS.—Baldness, like obesity, is one of those minor evils which could probably be much more thoroughly kept under control, if people would take more pains and begin earlier with their treatment.

Dr. M. Jos. Tyson, who writes upon idiopathic and premature baldness in the *Lancet* (London), makes some observations which quite corroborate this view. Thus he sums up the causes of baldness as: Insufficient exposure of the hair to the sun and air; close, ill-ventilated hats; excessive mental work and worry; the influence of heredity; venereal and alcoholic excesses; constant washing, and the neglect of using some oil or pomade. These causes vary in importance in different cases.

Children, he says, should, as much as possible, do without caps and hats, when worn should be of the lightest description. During the hot season a stouter hat is necessary for the prevention of sunstroke. A head covering should never be worn indoors, in trains, or in closed carriages. The kind of material employed is of importance. In summer and still weather, straw appears to be the best, on account of its lightness and permeability. In winter, hats made of light felt, well ventilated and unlined, are to be recommended. The ordinary tall hat, and the thick, heavy, unventilated top hat, cannot be too strongly condemned. Of course, nothing special can be said regarding hereditary or nervous influences. In concluding, however, he mentions a few minor points of treatment which should not be forgotten:

Too constant washing of the hair is unnecessary, as well as harmful; once a week is quite often enough for cleanliness, as well as for maintaining the strength of the hair. The same remark applies to constant brushing, for continual brushing, especially with hard brushes, should be avoided.

There is a common notion that greasing the hair is vulgar; so many persons fall into the other extreme, and never apply any pomade at all. After the hair has been washed, it is certainly beneficial to apply some form of simple grease or oil.

When the head-hair is becoming rapidly thinned, some stimulating material, such as ammonia and cantharides, added to the oil, will increase its good effects.

Dr. Tyson does not take into account one possibly important factor in causing baldness, viz., that of contagion. It has been held on good authority that many cases of baldness are parasitic, and due to micro-organisms gathered from unclean brushes and combs.

—*Medical Record.*

CANTHARIDES IN CANCER.—More than twenty years ago it was reported that the Russian peasants were in the habit of using some kind of beetle as a remedy for cancer. Since that time some observations have been made which would appear to point to the possibility of cantharides being of some use for this purpose. In 1860 Dr. Wilms excised the left breast for a tumor of the size of a small walnut, which was shown by the microscope to be a reticular carcinoma. It returned, and was again excised a year after the first operation. A mixture of tincture of cantharides and camphorated wine in mucilage was now prescribed, and was continued for three months. The patient, who was a widow at the time, afterwards married again, and gave birth to two children. She is still alive, and there has been no recurrence. Again, in 1880, a somewhat extensive cancer of the breast was operated on in the Augusta Hospital, after which the patient was treated with cantharides, and was known to have had no return of the tumor six years later; indeed she is believed to be alive and well at the present time. Once more, in 1879, a stricture of the œsophagus, evidently of a carcinomatous nature, developed somewhat rapidly in a female patient; she was treated with cantharides, and a decided improvement took place, so that she was able to swallow pieces of food if they were well masticated. She is alive still, but feels, however, some inconvenience from the stricture, and at times is obliged to have recourse to the cantharides.

—*Lancet.*

CYSTIC DISEASE OF FŒTAL KIDNEY IMPEDING LABOR.—Dr. Ehrhardt has recently described a case of cystic disease of the fœtal kidney impeding labor (*Nouv. Arch. d' Obst*). A woman, aged twenty-three, was delivered at the eighth month of her second child. The fœtal heart sounds could be heard before labor; the abdomen of the mother was much distended. The head and the arms were delivered and found to be very œdematous. After prolonged traction the fœtus remained fixed. The maternal pelvis was normal. Distention of the child's abdomen was then detected by passing the hand into the uterus after decapitation and removal of one arm, and evisceration was attempted. The liver was removed; next a large friable tumor was drawn down; a few pieces were drawn off, and then small cystic degeneration of one kidney was diagnosed. This drawing down of the kidney allowed the remains of the fœtus to be delivered by gentle traction on the thorax. Small cystic degeneration of both kidneys was discovered. The spermatic plexus was slightly varicose. It was remarkable that the fœtus lived till delivery, since both kidneys were entirely degenerate and the heart diseased. The case shows the insignificant part played by the kineys during intrauterine life, and refutes the theory which attributes the origin of the liquor amnii to the urine of the fœtus. One of the kidneys was just over, the other just under, five inches in vertical measurement. The success of drawing down one of the tumors must be remembered as a precedent. It diminished the transverse diameter of the fœtal abdomen, which was the sole cause of impediment to delivery.—*Brit. Med. Jour.*

USE OF HYOSCINE.—In a paper in the *Journal of Mental Science* Dr. Lionel Weatherly has a very strong word to say in favor of hyoscine in certain conditions. There is little doubt that his warning against mistaking it for hyoscyamine is not unnecessary, and it is now high time that it should be recognised that in these two substances we have to deal with alkaloids of very different characters, from the point of view at least of the clinical physician. Dr. Weatherly believes strongly in the powers of hyoscine as a mental alterative. He has found it particularly useful in that form of mental disturbance which renders the patient violent and abusive, restless and domineering—a nuisance to every one who has anything to do with him. Under the administration of repeated small doses of hyoscine such a patient becomes a changed man. Violence and abusiveness give place to an amiable politeness, and instead of indulging himself in the free exercise of an extensive, if somewhat shady vocabulary, the patient subsides into silence. Those are the cases in which Dr. Weatherly finds the drug most useful, and in which he believes it acts as a true mental alterative. It is also, he says, a useful drug in delirium tremens, and in other diseases in which tremor is a marked symptom, such as disseminated sclerosis, and it has the great advantage of being in most circumstances quite safe. It is not without reason that Dr. Weatherly enters a word of warning against its indiscriminate use as a sudden and powerful hypnotic; yet there would appear to be no doubt that it finds its greatest, and probably its most useful, application in the treatment of maniacal violence and noisiness, and that, at least in ordinary hospital work, it is a drug for emergencies.—*Lancet.*

ICHTHYOL VARNISH.—Unna, who has made extensive use of ichthyol in the form of ointments, pastes-ichthyol-collodion and ichthyol-gelatine recognized the need of an ichthyol varnish that would not have the disadvantages of the collodion and gelatine in being somewhat irritating to an abraded skin, and that would not possess the hygroscopic qualities of the pure drug. He believes that a good many specialists have been less successful in the treatment of rosacea and lupus erythematosus with ichthyol, because they have used the drug in the form of ointments and pastes.

For this purpose he experimented with various substances, and found that if starch were added to ichthyol the mixture was not hygroscopic, and that to this mixture albumen must be added in order to keep the starch in suspension. The formula for this ichthyol varnish reads:

℞.—Ichthyol	40 parts.
Starch	40 "
Sol. albumen	1–1½ "
Water, ad	100 "

The starch is first thoroughly mixed with the water, then the ichythol added and lastly the solution of albumen. Another formula in which carbolic acid is incorporated is:

℞.—Ichthyol	25 parts.
Carbolic acid	2.5 "
Starch	50 "
Water	22.5 "

This varnish is intended especially as a dressing in minor surgery, as it dries quickly, and can easily be removed by water. The soluble ichthyol varnish combines all the advantages of the various ichthyol preparations without their disadvantages. It dries quickly and is not dissolved by the perspiration. It is valuable in acne in persons with a very sensitive skin, in rosacea, and in lupus erythematosus. In some forms of eczema and in erysipelas it is of great service.

This varnish is also made the vehicle for other drugs, on the principle that several therapeutic agents of the same class may, with advantage, be united in one prescription. In this way a more powerful effect may be produced, while the disadvantages of the several drugs are lessened. For examples, 2 to 5 per cent. of chrysarobin may be added to the ichthyol varnish for use upon the face, and used with the same security as chrysarobin-collodion. Certain circumscribed forms of eczema, psoriasis and other affections may be treated by combining pyrogallol, resorcin and sulphur with the ichthyol varnish. It is to be noted that in order to obtain a suitable consistency, an amount of water or oil, equal to that of every new medicament added, should be mixed with the varnish. For this purpose linseed oil is used as a rule.

—*Boston Med. and Surg. Journal.*

VARICOSE ULCERS.—For the treatment of varicose ulcers of the leg and moist eczema, J. Braun recommends a 10 per cent. lanoline zinc ointment according to the following formula:

℞.—Zinci oxidi..... ʒiss.
Lanolin..... ʒxi.
Ungt. emollient..... ʒiv.—M.

The emollient ointment consists of:

℞.—White wax..... 1 part.
Spermaceti..... 2 parts.
Almond oil..... 8 "
Rose water..... 2 "

so that it resembles cold cream. The lanoline zinc ointment is applied spread on linen, and the patient is ordered to keep in bed till the ulcer has granulated over. The application is renewed more or less frequently, according to the condition of the ulcer. Against eczema of the scalp, the author uses an ointment prepared as under:

℞.—Hydrarg. præcip. alb..... ʒj.
Ung. emollient..... ʒij.
Lanolini..... ʒvij.

The latest remedy against the stings of bees, wasps, mosquitoes and the like is to rub the affected parts with a solution of sea salt. Swelling and pain disappear immediately, and, indeed, do not manifest themselves if the application be made immediately after the sting or bite.—*Ex.*

SPLENIC ABSCESS OPENING INTO BOTH THE LUNGS AND THE BOWEL.—An interesting case of abscess of the spleen is related in *La Crônica Médica*, a Peruvian journal, which occurred in the Lima Hospital under the care of Dr. R. Quiroga y Mena. The patient was a lad of sixteen, who had been suffering from attacks of malarial fever, which had been followed by enlargement of the spleen, of which the patient was conscious. In this condition he had a fall from his horse, striking his left side against a stone. He was brought into hospital on September 3, 1890, and when examined the next day was found to have the signs of pneumonia of the left base, together with a large fluctuating tumor of the spleen; the pulse and respiration were somewhat rapid, and the temperature 39.5° C. It was decided to aspirate the following day. However, during the night the patient had two violent attacks of coughing, bringing up large quantities of puriform matter of a dark color like the dregs of wine, which appeared to have come from the spleen, as the tumor, which had measured about three and a half inches by two and a half inches, had completely disappeared. The patient, too, seemed quieter and better generally, and the proposed operation was abandoned as needless. A blister was, however, applied, and a tonic mixture ordered. The next night a stool was passed containing purulent matter of the same color as that evacuated by the mouth. During the next three months this matter continued to be discharged both through the respiratory passages and by the bowels, setting up at times a certain amount of diarrhœa. After that there was great improvement, both discharges gradually ceasing, and the patient was able to leave the hospital about eighteen weeks after admission, quite recovered.

—*The Lancet.*

TREATMENT OF REDUCIBLE HERNIA BY ALCOHOLIC INJECTIONS.—The original *modus operandi* of Schwalbe, who introduced this form of treatment in 1871, is slightly modified by Dr. Steffen, of Regensdorf (Zurich). A 70 per cent. solution of alcohol was used, and from two to four grammes of this fluid were injected round the saccus herniosus (hernial sac) after reposition of the hernia. The treatment was ambulatory; first one or two injections a week were made, then at greater intervals. Before being dismissed from medical supervision the patient had to go without the truss which he used during the treatment. The time of treatment varied from one month to two years and a half, or more. In 293 cases there were 83 (62 per cent.) cures, 6 (48 per cent.) improvements, 9 (9 per cent.) of negative results. A cure was considered to have been obtained when, at least one year after dismissal of the patient, the hernia was neither to be seen nor felt during coughing or under intra-abdominal pressure, and when the patients, most of whom belonged to the laboring class, had been at their work for six or seven months. In 10 per cent. of the cases dismissed as cured the hernia returned, owing to various causes. The age of the hernia (*sit venia verbo*) was not without influence as to the result obtained, as will be seen from the following list:

Duration of disease.	No. of cases.	No. of cures.	Percentage.
Hernia incipiens.....	11	11	100
Date, a few days.....	10	10	100
Under ½ year.....	44	41	93.2
" 1 "	45	41	91
" 10 years	120	101	84.2
" 30 "	52	34	65.4
Over 30 "	5	4	80
Date unknown.....	6	3	50

Dr. Steffen comes to the following conclusions: About four-fifths of small and medium-sized reducible herniæ can be cured, the wearing of a truss becoming in many cases superfluous. The prognosis improves the younger the individual, and the shorter the time the hernia has existed. Incipient cases should therefore be treated by injections, and not left to the chance of a spontaneous cure under a truss. Ambulatory treatment, with pauses of from four to seven days, gives better results than daily injection whilst keeping the patient in bed. In most cases the patient does better to continue his usual occupation, wearing a truss during the time of treatment. This method is also adapted to herniæ which cannot be retained by a truss, the latter being able to be worn, and keeping back the hernia after a course of treatment. In a few cases only toxic effects (alcoholism, urticaria, vertigo) were observed. This method of treatment is not entirely without danger; but accidents will be rare if due care is taken and regard paid to the anatomy of the respective parts. For particulars I must refer to Dr. Steffen's paper in Nos. 12 and 13 of the *Correspondenzblatt für Schweizer Aerzte.*

—Zangger, *Lancet.*

THE APPLICATION OF MEDICINE THROUGH THE SKIN BY ELECTRICITY (CATAPHORESIS). — At the last meeting of the Richmond, Va., Academy of Medicine, Dr. Hunter McGuire read an interesting paper on the "Application of Medicine to the System Through the Skin by the Aid of Electricity." He stated that he had experimented with goitre, and his experiments had demonstrated that iodine and cocaine could be absorbed by the glands, and the size of the tumors reduced, if not wholly cured. The latter could be done, he thought, if the applications were made when the tumor first appeared. Goitre is the abnormal swelling of the thyroid gland, and the malady is peculiar to women especially. In Switzerland, perhaps, there are more sufferers from goitre than any other part of the world, but in all countries it can be found. Men are but seldom afflicted with it.

Another strange feature of the swelling is the fact that the use of the thyroid gland has never been determined. It has been for years a mooted question in medical literature as to the utility of the gland. No scientist has ever settled the matter satisfactorily.

Dr. Shields reported three cases that he had cured by electricity. The cases had not been of long standing. He stated that he had used neither iodine nor cocaine, and regarded the treatment as a great step forward in medical science.

By this process some medicines can be conducted unchanged to the organ affected, and physicians have a better assurance of their action than if the drugs were administered by the roundabout way of the stomach.

Dr. M. D. Hoge, Jr., expressed the idea that the method could be employed by dentists so that teeth may be extracted without pain. Dr. McGuire said that cocaine administered by electricity was not dangerous, but would often prove so when taken through the mouth.—*Med. Summary.*

INJURIOUS EFFECTS OF THE MANUFACTURE OF MELINITE.—During the last year or so several cases have been admitted to the Marseilles hospitals of poisoning during the manufacture of the new explosive, melinite, one of which recently formed the subject of a paper read to the local medical society by MM. Regnault and Sarles. The patient was a young man, whose earliest symptoms were a prickling sensation in the eyes and loss of appetite; afterward there were fits of coughing, but no hæmoptysis, which, however, frequently occurs in these cases. The man was admitted into the hospital complaining chiefly of the cough and of fits of choking. His work had been to pour carbolic acid into nitric acid in order to manufacture picric acid, and he had, consequently, been constantly breathing nitrous acid fumes, and probably also picric acid volatilized by heat. The fits of dyspnœa lasted about ten minutes, and were accompanied by spasm of the glottis, the lips becoming quite purple, the number of respirations amounting to 56 a minute. During the attack the pulse was small and difficult to count, but was not above 65. Sibilant and sonorous rhonchi were heard, especially over the bases, at all times, but they were more marked during the attacks, which came on at intervals of from thirty to forty-five minutes. Shortly after admission, while the influenza epidemic was at its height, broncho-pneumonia came on, and the man died, this being the only case of poisoning by melinite manufacture which proved fatal, all the others recovering with rest. At the post-mortem examination, besides the lesions due to the broncho-pneumonia, evidences of parenchymatous nephritis were found, which appeared to have been due to the poison. Picric acid was detected in the liver, as it had been, indeed, in the urine during life.—*Lancet.*

ON THE CONVALESCENCE OF SCARLATINA.—Dr. Chenet (*Revue Générale de Clinique*) says that he finds—as many will who inquire—the widest kind of difference about this matter. Some doctors are in favor of keeping such cases in bed as long as possible, three weeks often, and six weeks in the house is a common rule; but the author finds it better to begin early with rubbing the body with fatty substances, and as soon as desquamation commences to give baths; then as soon as the skin peeling is over to let them go out. The modern idea is that albuminuria is an infectious phenomenon, which can be prevented by re-establishing as quickly as possible the function of the skin. The fear of catching cold is correct in principle in these cases; but is confinement the best way to prevent this? Many think not. The child that is left alone for a single instant may throw off its coverings, or its bed may be placed near a door, in the draught. If it is up it may play about near the windows, and in all these cases catch cold, which may bring on nephritis; would it not be better to hasten the return of the skin function and get these cases out quicker? The author gives cases in which he commenced on the eighth day to use friction with *borated* vaseline, and commenced baths in third week. Three grains of calomel were given daily all through the case and milk was used as food. About contagion: the author inclines to the opinion that it is most dangerous during the peeling of the skin, and that the antiseptic ointment he uses helps to prevent the persons around the patient taking the malady. An antiseptic mouth-wash and throat gargle is also necessary. The giving of baths as soon as possible, then, is indicated, and they may or should be antiseptic. Isolation, the author thinks, is useful, but not sure at all, as cases of contagion from patients three months after convalescence are given, and surely they cannot be kept isolated so long.

—*Archives of Pediatrics.*

AN EASY METHOD OF PLUGGING FOR EPISTAXIS.—Dr. A. A. Philip describes a ready method of plugging the posterior nares, which, in his hands, is both effectual and easily accomplished.[1] A piece of old, soft, thin cotton, oiled silk, or silk, about six inches square—a piece of an old handkerchief will answer—is taken, and, by means of a probe, metal thermometer-case, or pen-holder, pushed, "umbrella" fashion, into the nostril, the direction of pressure, when the patient is sitting erect, being backward and slightly downward. It is pushed on until it is felt that the point of the "umbrella" is well into the cavity of the naso-pharynx.

The thermometer-case is now pushed on in an upward direction, and then toward the sides, so as to push more of the "umbrella" into the pharynx, and then withdrawn. The closed end of the sac protrudes well into the pharynx, and its open end protrudes at the anterior nares. The inside of the sac may be brushed with some astringent, such as alum or turpentine.

A considerable quantity of cotton-wool is pushed well back to the bottom of the sac in the pharynx. Then—the thermometer-case being held well against

[1] *British Medical Journal*, July 18.

the packed wool—the mouth of the sac is pulled upon, and thus its bottom is drawn forward and forms a firm, hard plug, wedged into the posterior nares. The sac may now be packed full of cotton-wool—dry, or soaked in some astringent solution. The mouth of the sac is tied just outside the nostril, trimmed with scissors, and the ends of the thread secured outside.

In removing the plug, open the mouth of the sac, and, with small dressing-forceps, gently remove the cotton-wool bit by bit. If there is bleeding, simply syringe the sac with weak carbolic lotion, or Condy's fluid, and repack with clean cotton-wool. If there is no bleeding when the wool is picked out, gently pull out the sac; or, if it adheres to the mucous membrane of the nostril, apply a little warm water, when it may easily be removed.

By this method no damage is done to the floor of the nose or back of soft palate by strings, etc., no disagreeable hawking, coughing, or vomiting takes place during introduction, and no disagreeable strings are left hanging inside the mouth.

—*Boston Med. and Surg. Jour.*

Treatment of Ulcerated Scarlet Fever and Diphtheritic Throats by Irrigation.—I have used the following method of treatment in the ulcerated throats of scarlet fever and diphtheria in the Birmingham City Hospital for about two years and a half. The appliances necessary are a small India-rubber bag syringe, 4 or 6 ounces, according to the size of the patient, two small basins and a towel. The medicament used is boric acid dissolved in hot water (about 105° F.). In order to facilitate the solution of the boric acid, I have a saturated solution in glycerine, of which the following are the proportions: Powdered boric acid, 4 parts; glycerine (sp. gr. 1,260), 3 parts. The glycerine should be heated by steam, and the boric acid (best quality, carefully powdered) stirred in till the solution is perfect. Of this solution, a large tablespoonful is dissolved in about a pint of hot water. The method of procedure is as follows:

Place the patient sitting up, or, if too weak to sit up, place him on his side with his face over the edge of the pillow. Apply the towel round his neck to keep him dry if any water accidentally gets spilled; withdraw the nozzle from the syringe before filling it and fill with the solution; replace the nozzle and direct the patient to open his mouth, then put it into the mouth well over the back of the tongue, and forcibly empty the syringe; at the same time receive the water which rushes out of the mouth and nose into the empty basin. In this way the mouth, fauces, pharnyx, and in some cases the posterior and anterior nares are irrigated. The operation is repeated till the parts are washed quite clean.

In cases of purulent discharge from the nose or nasal diphtheria the same procedure is applied to the nostrils. The irrigation may be performed every two or four hours as circumstances require.

In this hospital during two years, over 1,500 cases of ulcerated scarlet fever and diphtheritic throats have been treated by this method.

From this experience I can recommend it as superior to any other I have tried. I believe its efficacy is due to the fact that it is founded on the rational principle of washing away of all septic discharges with a non-irritating, non-poisonous fluid. It is not in any way disagreeable to patients, on the contrary, when the mouth is dry or foul, it is most comforting. The solution is rendered sweet by the glycerine, so that only a small percentage of even very young children offer any objection to it. Occasionally children swallow some without any subsequent ill effects. It should be borne in mind that, in order to prevent any septic matter being sucked into the syringe, the nozzle should always be withdrawn when filling.

—*The Lancet.*

On Hot Infusions of Digitalis in the Treatment of Pneumonia.—During the past three months excellent opportunity has been afforded me to test the value of the treatment of pneumonia by means of large and frequently repeated doses of the infusion of digitalis, given early in the attack. The marked benefits resulting in a few cases thus treated last fall, suggested its great importance and bolder use. In twenty cases the treatment was commenced by the administration of ten grains of the mild chloride of mercury, together with a tablespoonful of the infusion of digitalis, given every hour as hot as the patient could drink it. In from six to ten hours profuse perspiration occurred in every case, followed in twelve cases by a normal temperature. In three instances the temperature, without the use of any antipyretic, dropped to 100°, in four to between 101° and 101.5°, and in one to between 103° and 105.5°. In no case was the temperature below 103° when first seen, and in all but one, it was ushered in by a direct rigor. In all the cases the characteristic rusty sputum was present, but its short duration showed clearly that the inflammatory process had been cut short.

The severest case was that of G. J., a laborer, aged thirty-two, in whom there was violent delirium from the outset. The patient having felt ill for nearly twenty-four hours, had a violent chill at 4.30 P. M., February 25. At 6 P. M. the thermometer showed a temperature of 105.5°; the pulse was 130. His attendants had him strapped to the bed. Crepitant râles were heard at the base and over the middle lobe of the right lung, anteriorly and posteriorly. The patient was given ten grains of calomel, followed in one hour and a half by a tablespoonful of a hot infusion of digitalis, the latter being repeated every hour, despite the fact the temperature at 11 P. M. had fallen to 103°, at 5 A. M. to 101°, and the pulse to 115, with a general improvement of all the manifestations of delirium. At 6 A. M. there was profound expectoration of rusty-colored sputum, that continued for twenty-four hours. On the third day the temperature returned to 105°; after active purging it fell rapidly. On the morning of the fourth day the pulse had dropped to 50, the temperature to 96°. The infusion of digitalis was discontinued, and a combination of camphor, strychnine, and quinine given. Convalescence was rapid, and just ten days after the beginning of the attack the patient was up and about. The loss of weight in this short attack was remarkable. At the beginning of the attack the man weighed about 168 pounds; on March 7 he weighed 144½—a loss of 23½ pounds.

That hot infusion of digitalis acts quickly upon the cardiac muscle that forces the blood through the affected area, and thus to a marked degree overcomes the dyscrasia, is probably the *rationale* of the action of the drug. The use of a large dose of calomel, by reducing the consistency of the blood, takes the place of the old-time method of bleeding.

In the twenty cases treated, no ill results followed these large doses of digitalis. However, it would be advisable to watch the circulation; in case of a sudden lowering of the pulse-rate, the infusion should at once be stopped, for this is an indication that the de-

sired effect of the remedy has been obtained; should slow pulse and low temperature persist, nothing will stimulate better than camphor, quinine, and strychnine, in quantities suitable to the case. Alcohol was not used until the temperature had subsided. In none of the cases was the so-called standard remedy, carbonate of ammonia, used.—Hershey, *Med. News.*

DIFFERENTIAL DIAGNOSIS OF ACUTE FOLLICULAR PHARYNGITIS AND DIPHTHERITIC PHARYNGITIS, WITH TREATMENT.—It seems to me proper that a more careful study of these diseases should be made, so that error of diagnosis may not mislead the physician and horrify the patient. There can be no excuse for a physician to call follicular pharyngitis cynanche maligna for the sake of a little glory in being able to cure diphtheria in two or three days; for I have known cases where it was supposed diphtheria was present, when in reality it was only follicular pharyngitis, and *vice versa*, pharyngitis was supposed to be present when, in fact, diphtheria was developed; and valuable time may be lost where the physician is uncertain and decides that the next twenty-four hours will develop the disease sufficient to determine.

The diagnosis of the disease is of first importance, then the proper selection of the remedies. We certainly have made progress in the treatment of these diseases in the past twenty-five years, and homœopathy can claim her share of reward in her results. Whether high, low, or medium doses are to be used will have to be determined by each prescriber. I shall only point out the remedies that are the most useful, and then let the individual prescriber choose the strength of his remedies to be administered.

It is always well to bear in mind that diphtheria is a specific constitutional disease, manifesting itself in the pharynx and surrounding parts generally, and also remember the exudations and secretions are of themselves septic and toxic, therefore local treatment is important.

Acute catarrhal pharyngitis may commence in a chill, followed by fever, fullness of throat, and enlarged sub-maxillary glands, the mucose membrane over the tonsils congested, the uvula enlarged, and the pharyngeal glands enlarged, exuding a yellow mucus, sometimes in spots, and then again flowing down the pharyngeal walls. This is a catarrhal trouble, and does not depend always upon an epidemic of diphtheria to produce it. It is, to a certain extent, contagious, for I have had as many as twenty cases at one time in boarding-schools.

If a bent probe with a swab of cotton is used, it will be found the exudation *can be wiped off.*

In the initial stage, acon., bell., merc.-proto., lachesis, kali-bicrom. will be indicated internally; hammamillis, bi-car. soda (saturated solution), as gargle. After exudation takes place, kali-bicrom., weak solution, as gargle. If the latter is swallowed a little nausea may follow, which is not detrimental. The third day generally sees the patient on the road to recovery.

In looking for diphtheria locally, the first evidence we have of this specific constitutional poisoning is a passive hyperæmia; then an excess of mucous, producing a cloudy appearance of the epithelium, having the appearance of a veil over the point of exudation, showing the first exudation is into the epithelium. *This cannot be wiped off*, characterizing this from acute pharyngitis, the exudation of which *can be wiped off.* The cells of the deeper structure soon become involved, and then we may have the yellow or white patches, or grey exudation of a leathery character, which *can* be removed, leaving a raw surface; and the second formation may be more tenacious than the first. When the rapid exudation into the epithelium takes place, or the lymphatics are obstructed, and the blood is cut off, then we have death in these parts, or gangrene, and may involve tissues other than the mucous or sub-mucous layers.

In the epithelium stage of diphtheria the following treatment may be indicated: Eucalyptus oil, 1 part; alcohol, 20 parts; as gargle every hour. If pain in throat, ice-bag may be applied to throat, cold milk and brandy every hour, and ice to swallow—if desired; internally, merc.-proto., lachesis, kali-bicrom., carbolic acid.

In the membranous stage, constant use of steam, hot fomentations to throat—which materially assists in detaching the membrane; as gargle, trypsin, 2 per cent. sol. in alcohol, hydrochloric acid dilute; also, free nourishment, and stimulation by alcohol; internally, mur.-tinct. ferrum and potash, merc.-proto., lachesis, kali bicrom., nitric acid, quinine, and corrosive sub., as indicated. The cor. sub. can be given ¼ gr. in forty-eight hours to a child two years of age, if required.

In the gangrenous form, free stimulation and nourishment; as gargle, trypsin, 2 per cent. sol. in alcohol, hydrochloric acid dilute, boracic acid, 1–1,000 sol., corrosive sub. sol.; internally, lachesis kali-bicrom., cor. sub., salts of iron, quinine, and carbolic acid. With a proper selection of the foregoing remedies to suit individual cases, the mortality from diphtheria may be greatly reduced.

—Avery, in *N. Y. Medical Times.*

ONE HUNDRED DON'TS IN SYPHILIS.—

1. Don't salivate your patient.
2. Don't frighten your patient with the seriousness of syphilis.
3. Don't tell your patient that syphilis is incurable.
4. Don't send him to Hot Springs.
5. Don't permit your patients to do as they please.
6. Don't fail to impress your patient with the infectious nature of syphilis.
7. Don't permit your patient to become melancholy.
8. Don't order inunctions for a married man.
9. Don't be afraid to give your remedies in doses that are high enough.
10. Don't regard every symptom and lesion as syphilitic because the patient is.
11. Don't pronounce a case not amenable to treatment; send the case to one who knows more about the subject than you do.
12. Don't operate on syphilitic lesions under the impression that they are epitheliomata.
13. Don't inquire as to how the disease was acquired. The patient will tell you unsolicited or will lie about it.
14. Don't fail to employ local applications.
15. Don't begin general treatment as soon as the chancer appears; it might not be a chancer.
16. Don't forget that some persons have large inguinal glands, normally.
17. Don't suggest alopecia to your patient, or he will pull out half of his hair to see if it is falling out.
18. Don't fail to watch closely for iritis. This needs immediate attention when it occurs.
19. Don't forget to make syphilitics keep their teeth clean.
20. Don't use nitrate of silver on mucous patches. Use nitric acid, pure carbolic acid, creosote, or cam-

pho-phenique, according to the depth and severity of the lesion.

21. Don't let your patient neglect taking medicine.

22. Don't foretell any results. They may not occur; or some may arise which you did not foresee.

23. Don't permit smoking or drinking during the early stages of syphilis.

24. Don't neglect any detail.

25. Don't permit a syphilitic to marry until you can conscientiously do so.

26. Don't attempt to make all syphilides disappear by internal medication alone.

27. Don't hesitate to use energetic treatment when it is indicated.

28. Don't let your patient get diarrhœa. If it comes on, stop it.

29. Don't let your patient get an iodic eruption. Use bicarbonate of soda.

30. Don't excise a chancre. It is useless except for cosmetic purposes.

31. Don't order mercurials or iodides to be taken before meals.

32. Don't pronounce a case, one of syphilis, until you know it to be such.

33. Don't make your external application too strong.

34. Don't fail to tone up your patient during the secondary period of incubation.

35. Don't place too much reliance upon the history furnished by your patient.

36. Don't imagine that the social standing of your patient is a guarantee of the disease not being syphilis.

37. Don't forget that tannate of mercury is indicated when gastric irritability is present.

38. Don't try every new remedy on your patient.

39. Don't forget that the mercurials and iodides are the only reliable remedies in syphilis.

40. Don't weaken your patient by excessive sweating.

41. Don't starve a syphilitic.

42. Don't abandon the iodides because they irritate the stomach. Administer them in milk, or try other iodine preparations.

43. Don't permit a syphilitic's pregnant wife to go to full term without placing her upon specific treatment.

44. Don't forget that, as a rule, syphilis is of a milder type in women than in men.

45. Don't forget to examine the genitalia of every syphilitic woman. They are prone to moist condylomata.

46. Don't excise syphilitic condylomata. They readily yield to topical applications.

47. Don't fail to look for the chancre. It must be somewhere.

48. Don't imagine that every pharyngitis in a syphilitic is necessarily specific in character.

49. Don't permit a syphilitic to kiss others. Mucous patches may have developed within a few hours.

50. Don't forget that tertiary symptoms may come on early in the disease.

51. Don't fill your patient with mercury for tertiary lesions.

52. Don't promise to remove bony growths (exostoses, etc.), by medication.

53. Don't permit gummata to ulcerate.

54. Don't regard any syphilitic lesion as too insignificant to deserve attention. It may be of the highest importance.

55. Don't push your remedies if they are not well borne. The reason for the want of tolerance must be found and corrected.

56. Don't neglect the patient's general condition.

57. Don't forget that potassium salts are more irritating than the sodium or ammonium salts.

58. Don't lose sight of the fact that the squamous syphilides require the local treatment given in psoriasis.

59. Don't use the same dose for every patient. Each case is a law unto itself.

60. Don't use the iodides in the early stages of syphilis.

61. Don't fail to watch your patients' gums closely while you are giving mercurials.

62. Don't forget that syphilitic eruptions itch in the hairy portions of the integument.

63. Don't imagine that syphilis can be "boiled out."

64. Don't forget that chancres may suppurate.

65. Don't cauterize a chancre.

66. Don't forget that chancre may be multiple.

67. Don't think that because an eruption is mild the process will not be severe.

68. Don't suppose that syphilides are painful until they attack the deeper structures.

69. Don't forget that brain-workers are most prone to syphilis of the brain and cord.

70. Don't call a phagedenic chancroid a mixed chancre.

71. Don't cauterize a serpiginous syphilide.

72. Don't place too much reliance upon vegetable alteratives.

73. Don't cut out the inguinal ganglia. It does no good and mutilates your patient.

74. Don't expect to find every chancre indurated. In some localities the chancre never indurates.

75. Don't permit a syphilitic, who has eruptions, to use the same towel in common with others.

76. Don't let a syphilitic sleep with one who is free of the disease.

77. Don't permit the secretions of syphilides to accumulate.

78. Don't trephine for gummata of the brain.

79. Don't give the patient the "benefit of the doubt" by placing him under specific treatment. It only increases the doubt.

80. Don't fail to make facial syphilides disappear as rapidly as possible.

81. Don't call a relapsing indurated syphilide a chancre.

82. Don't give quinine in syphilitic fever.

83. Don't hesitate to dress serious lesions yourself. You will then know they receive proper attention.

84. Don't fail to give your patient a mouth-wash and gargle during mercurial treatment. It will counteract the effects of the mercury to a certain extent.

85. Don't call the pigmentation of syphilis tinea versicolor.

86. Don't take flea bites or the eruption produced by the bites of other insects for the erythematous-syphilide.

87. Don't forget that a chancre may be but a slight erosion.

88. Don't take a chancre of the tonsil to be an enlarged tonsil.

89. Don't believe all the stories of mediate contagion which patients will tell you.

90. Don't forget cleanliness in the treatment of the chancre.

91. Don't administer iodide of potassium in very small doses.

92. Don't attempt to treat a case of syphilis if you cannot give it your continuous attention.

93. Don't forget that iodide of potassium is best administered in milk.

94. Don't forget that syphilis attacks the nervous system very insiduously.

95. Don't permit a syphilitic nurse to suckle a healthy child, nor a healthy nurse a syphilitic child.

96. Don't always expect a child to show evidences of congenital syphilis at birth; they frequently appear later on.

97. Don't fail to watch closely the offspring of syphilitic parents.

98. Don't rely upon the dictum that syphilitic eruptions are always symmetrical.

99. Don't regard syphilitics as criminals; they are unfortunate.

100. Don't fail to point out to every syphilitic that he or she is a focus of infection, a dangerous member of the community, and enjoin the exercise of the greatest care to prevent the accidental infection of others. Against deliberate infection there is no protection.

—Ohmann-Aumesnil, in *Cincinnati Med. News.*

GERMAN NOTES.

HERMAN MARCUS, M.D.

THE USE OF KAVA IN GONORRHŒA.—This drug is recommended by Dupony and Gubler as almost a specific in the treatment of gonorrhœa and leucorrhœa. The active principles of the plant are a resin and a crystalline substance, called by Gubler, kavaine. The administration of kava in gonorrhœa increases the urinary secretion, reduces inflammation, and quiets pain. It has the advantage over balsam of copaiba in that it has a pleasant taste, and does not affect the stomach unpleasantly. The plant is a native of the islands of the Pacific.—*Deutsche Medicinal Zeitung.*

PILOCARPINE IN FISH POISONING.—Dr. Danilevsky, of Jelezovodsk, reports a case of poisoning by salt sturgeon treated and cured by pilocarpine. The patient suffered alarming prostration, with almost total suppression of all the secretions. On the fifth day, when death seemed inevitable, pilocarpine was tried, with prompt relief of the more distressing symptoms. The patient continued weak for ten or twelve days, but made a good recovery. The drug was given in quantity of one-fourth of a grain daily until salivation was induced, and the quantity of urine had reached the normal mark.—*Vratch.*

Medical News and Miscellany.

A DOCTOR in Connecticut has recently been fined ten dollars for refusing to attend a boy who had been bitten by a dog. The claim was that the boy had suffered unnecessarily before he could receive medical aid, and that the delay had resulted in greater disfiguration from the scar.—*Ex.*

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.—The permanent International Committee has appointed the following International Sub-Committee to prepare a scheme for the organization of future Congresses: Professor Brouardel, (France), Professor Dr. Fódór, (Hungary), and Professor Corfield (England), to represent Hygiene; and M. Körösi (Hungary) and Dr. Janssens (Belgium), to represent Demography.—*Ex.*

THE Mississippi Valley Medical Association will hold its Seventeenth Annual Session at St. Louis, Wednesday, Thursday and Friday, October 14, 15, 16, 1891. Reduced rates. An excellent programme will bring out a large attendance. The medical profession is respectfully invited. The officers are as follows: C. H. Hughes, M.D., 500 N. Jefferson avenue, St. Louis; E. S. McKeith, Secretary, 57 W. 7th street, Cincinnati, Ohio; I. N. Love, M.D., Chairman Committee of Arrangements, 501 N. Grand avenue, St. Louis, Mo.

KOCH INSTITUTE IN BERLIN.—The clinical section of the new Institute will be completed within a few weeks. There are seven parlors, having accommodations for 108 patients, and two parlors for physicians and attendants. Prof. Ludwig Brieger will probably be at the head of the clinical department, and Dr. Richard Pfleger will have charge of the scientific department. Koch, it is said, will receive a salary of 20,000 marks ($5,000), and Drs. Brieger and Pfleger each 6,000 marks ($1,500).—*Ex.*

A FIVE-YEARS' MEDICAL COURSE IN CANADA.—The Medical Council of the College of Physicians and Surgeons of Ontario, recently passed the following resolution: "On and after July 1, 1892, every student must spend a period of five years in actual professional studies, except as hereinafter provided, and the prescribed period of studies shall include four winter sessions of six months each and one summer session of ten weeks; the fifth year shall be devoted to clinical work, six months of which may be spent with a registered practitioner in Ontario, and six months at one or more public hospitals, dispensaries, or laboratories, Canadian, British, or foreign, attended after being registered as a medical student in the register of the College of Physicians and Surgeons of Ontario; but any change in the curriculum of studies fixed by the Council shall not come into effect until one year after such change is made."

—*St. Louis Medical and Surgical Journal.*

OSSIFICATION OF THE EYE.—Samuel A. Avila, the Republican leader in the Eleventh ward in Brooklyn, recently had his left eye removed by a surgeon, says the New York *Sun.*

Thirty-five years ago, when in his nineteenth year, Mr. Avila was badly injured while he was at work in his father's paint shop, a piece of broken nail having lodged in his eye. By the advice of Dr. Agnew he concluded not to have the piece of nail removed, and until last March, when he began to suffer from pains in the left side of his head, he experienced no trouble from it.

The pains in his head became so acute that he consulted Dr. Matthewson, who informed him that he was suffering from the very rare disease of ossification of the eye, and that he would have to get it out. The operation was successfully performed about a week ago. Mr. Avila says that he never had a better time in his life than during the hour he was under the influence of ether. The small piece of nail is still in the ball, as the ball is so hard that the iron cannot be removed from it.—*Ex.*

A NEW TREATMENT FOR ECZEMA.—Eczema is so frequently rebellious to the resources of our ordinary therapeutics that we shall not complain at seeing new curative measures recommended. The one brought forward by a French physician, M. Bourdin, combines the merit of being easily applied with that of having already produced improvement

in a whole series of cases. The process consists of washing with soap and water the parts affected with the disease, and, after having carefully dried them, to expose them to a bright fire. The patient must stand the severe itching that is brought on without scratching himself, and must be content with passing his hand quietly over the spot and then exposing it again to the heat.

The itching appears again immediately, and then stops, either by having been brought nearer to the fire or by being touched again with the hand. After five or six attacks of this itching the séance should be ended by exposing the spot two or three times to the fire at a nearer distance. This produces a disagreeable burning sensation, but is not painful. This treatment gives good results, especially when the ulcerative period has not yet come on, and, besides this, it procures to those patients who are more or less deprived of sleep and who spend the greater part of the night in a half conscious, half unconscious scratching, the rest of which they stand so much in need.

WEEKLY Report of Interments in Philadelphia, from August 29 to September 5, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess	2	1	Inflammation brain	3	12
Aneurism of the aorta	1		" bronchi		1
Apoplexy	11		" kidneys	4	
Asthma	1		" ear	1	
Anæmia	1		" liver	1	
Bright's disease	6	1	" lungs	6	7
Burns and scalds	1	2	" heart	2	2
Cancer	5		" peritoneum	1	
Carbuncle	1		" pleura	1	
Casualties	6	2	" s. & bowels	4	2
Cerebro-spinal meningitis		1	" nerves	1	
Congestion of the brain		6	" spine	2	
" " lungs	1	1	Insanity	1	
" " liver	1		Intussusception		1
Cholera infantum		44	Jaundice	2	
" morbus	2	1	Laparotomy	1	
Cirrhosis of the liver	2		Marasmus		22
Consumption of the lungs	30	6	Measles		1
Convulsions		15	Neuralgia of the heart	1	
Croup		7	Obstruction of the bowels	2	
Cyanosis		5	Old age	10	
Debility	2	2	Purpura		1
Diarrhœa	2	1	Paralysis	7	1
Diphtheria		10	Poisoning, opium	1	
Disease of the heart	14	2	Rheumatism	1	1
" " kidneys	1		Rupture of the liver		1
Drowned		2	Septicæmia	3	
Dropsy, abdominal	1		Softening of the brain	1	
" of the brain	1	2	Suicide	2	
Dysentery	3	1	Syphilis		2
Fatty degeneration of the heart	1		Teething		5
Fever, malarial	1		Tumor		1
" scarlet		2	Ulceration of the bowels	1	
" typhoid	6	2	" " stomach	2	
Hemorrhage		1	Unknown		1
Homicide		2	Uræmia	2	1
Inanition		15	Whooping cough		3
Inflammation bladder	1		Total	167	199

NON-ALCOHOLIC REMEDIES.—"What can we use instead of alcoholics in emergency cases, so often arising in the home?" questions many a parent who shrinks from incurring the risk attending alcoholic medication. Dr. L. M. Ousley, house physician of the National Temperance Hospital, Chicago, has prepared a leaflet to answer this question, from which we are permitted to make extracts. As both the allopathic and homœopathic schools are represented on its staff, the remedies given represent both, and include many household remedies quite as easy to procure and administer as brandy or wine.

What beside alcohol will dissolve camphor?

Sweet oil.

What may be used in the place of alcohol for a stimulating bath?

1. One teacupful of sea salt to a gallon of water. 2. Aqua ammonia, 20 drops to the gallon.

What may be used instead of alcohol in collapse?

1. Aqua ammonia, 1 to 5 drops in a wineglass of water. 2. Aromatic spirits of ammonia, 10 to 30 drops in a wineglass of water. 3. $\frac{1}{30}$ to $\frac{1}{60}$ grain of atropine, given hypodermically.

What may be substituted for brandy to be taken after having teeth extracted?

Aromatic spirits of ammonia, 10 to 30 drops, in a wineglass of water.

What may be taken in the place of alcohol in fevers when patients are at the low point so often reached in typhoid?

1. Aromatic spirits of ammonia, 10 to 30 drops at a dose. 2. Quinine, from 1 to 5 grains. 3. Cactus grandiflora. 4. Caffeine. 5. Digitalis. 6. One part of camphor to four parts of olive oil, 15 minims every one or two hours, hypodermically. 7. Powdered camphor, 2 to 5 grains every one or two hours.

What remedy shall we use to counteract the poison of diphtheria?

1. Permanganate of potash in 3-grain doses. 2. Tincture of chloride of iron. 3. Bichloride of mercury. 4. Chloride of potash. 5. Hydrochloric acid.

Here are some cures for snake-bites vouched for by Dr. Swartz, within easy reach of everybody: 1. Turpentine; put in a wide-mouthed bottle, and place the uncorked mouth directly over the bite, holding it closely, so no air can get in. The turpentine will soon be colored by the virus; empty out, and put in fresh. 2. A strong solution of soda, applied to the wound, and also taken internally. 3. Kill a chicken, and bind on to the wound while the flesh is still warm. 4. Ammonia applied in the same way as directed for turpentine.—*Union Signal.*

GRAFTING CANCER IN THE HUMAN SUBJECT.—At a recent meeting of the Paris Académie de Médicine, Cornil reported two cases of successful grafting of malignant growths in the human being. He stated that the first case had been communicated to him by a foreign surgeon, whose name he withheld, and whose act he did not justify. This surgeon removed from a woman a breast which was the seat of an enormous tumor; then, while the patient was still under the influence of the chloroform—and, of course, without her consent—cut a small section of the tumor and inserted it under the skin of the opposite healthy breast, using the strictest antiseptic precautions. The wound healed by first intention, and for the first few days nothing was noticed at the site of the graft, but soon an indurated nodule developed, and in two months, having grown to the size of an almond, was removed by the same surgeon.

Both tumors were examined by Cornil, who found them to be sarcomata and identical in structure. The ingrafted portion of the first tumor had become a part of the healthy breast, vessel anastomoses had occurred, its cells had penetrated into the healthy adjacent tissues, and its rapid growth was indicated by karyokinesis of the cells. Shortly after the patient died of some acute intercurrent malady, and the autopsy, which was made with great care, revealed no trace of sarcoma in any portion of the body, neither in the lymphatic glands, internal organs, or the spongy tissue of the bones.

In the second case, a portion of a tumor removed from a breast was, in a similar surreptitious manner, inserted into the healthy breast of the patient. This tumor proved to be an epithelioma. The second graft, like the first, produced no inflammatory reac-

tion, but later, at the site of its insertion, a nodule developed. The patient declined to have the second breast removed, and disappeared from the surgeon's observation.

It is pleasing to note that the French Academy, at the close of the reading of this paper, expressed only its stern disapprobation of the methods employed, and by silence refused to discuss the scientific aspects of the cases. The indignation was not confined to the Academy, but also found vent in the public press, and Cornil felt compelled to defend himself in a letter to *Le Temps*, in which he defends the publication on somewhat remarkable ground. He compared it to the breaking of a bridge in a railroad accident, the causes for which are sought in the midst of the calamity. He further instances the well known case of Alexis St. Martin, whose accident gave Dr. Beaumont an opportunity to investigate the function of the stomach. From these he urges that, while we must condemn the surgeon who did the work, we ought not to ignore whatever the unfortunate occurrence may teach us. This is pure sophistry. It ignores the grand object of medicine, which is to relieve suffering, not to acquire abstract knowledge. And questions which require for their solution the infliction of needless suffering on human beings must wait until a proper opportunity for their solution presents itself. We cannot afford to stultify our profession, whose great boast—and whose legitimate boast—is its humanity, by such criminal acts.

Putting humanity entirely in the background, such experiments cannot be defended even in the name of science, for they are not scientific. They prove only that the implantation of a sarcomatous or epitheliomatous mass in persons already suffering from the corresponding disease is capable of causing a local sarcomatous or epitheliomatous growth. This does not prove that these growths are infectious, for who can say that some other form of irritation in these same individuals would not have caused like results? The gain to science by these experiments is decidedly problematic; at most it is insignificant, and utterly incommensurate with the cost at which it was obtained. We could far better have afforded that such experiments should have forever remained untold than have gratified—perhaps to some extent justified—the individual who made them. If, however, the storm of indignation which has been aroused shall deter others who might have in view, in their zeal for science, similar unjustifiable experiments, Cornil's publication will have had a real, though unexpected value.

It remains to be said that, since the Parisian affair, Professors Hahn and Von Bergmann, of Berlin, have both been openly charged, by an officer of the German Government, with having inoculated cancer in the healthy human being. Their reply has not yet come to hand.

—*The Journal of the American Medical Association.*

A COLD GREENHOUSE.—A German horticultural journal says, that one of the latest inventions in medicine is the use of Cold greenhouses in tropical countries as a means of combating yellow fever. This disease, it states, can be conquered if one removes to those elevated regions in which oaks will grow. This fact recently inspired a celebrated Cuban physician with the idea of reducing the temperature of sick-rooms by artificial means, and wonderful cures resulted. Now it is proposed that, in districts liable to the epidemic, each town shall erect a great glass house in which plants of cold and temperate regions may be grown, the temperature being artificially cooled instead of heated, as in our greenhouses, and that they shall be devoted to the treatment of patients suffering from the fever.—*Garden and Forrest.*

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from August 23, to September 7, 1891.

Major Samuel M. Horton, Surgeon, U. S. Army, is relieved from further duty at Fort Adams, R. I., and will proceed to San Diego, Cal., and report to the commanding officer for duty at that post.

Leave of absence for fifteen days is granted Surgeon J. V. D. Middleton, U. S. Army.

Leave of absence for twenty-five days is granted Major James P. Kimball, Surgeon, U. S. Army.

Captain M. C. Wyeth, Assistant-Surgeon, U. S. Army, sick leave of absence extended three months on surgeon's certificate of disability.

Captain James E. Pilcher, Assistant-Surgeon, U. S. Army, is relieved from duty at Fort Clark, Texas, on expiration of leave of absence, and is assigned to duty at Fort Ringgold, Texas.

Major Dalery Havard, Surgeon, U. S. Army, granted three months' leave of absence to take effect on or about September 5, 1891.

Leave of absence for one month, to commence on or about September 3, 1891, is hereby granted Captain Adrian S. Pathemus, Assistant-Surgeon.

Leave of absence for fifteen days is granted Captain L. W. Crampton, Assistant-Surgeon, U. S. Army.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending September 5, 1891.

HESLER, F. A., Passed Assistant-Surgeon. Detached from U. S. S. "Pensacola," and to the U. S. S. "Charleston."

WELLS, HOWARD, Surgeon. Ordered to temporary duty in the Bureau of Medicine and Surgery.

DICKSON, S. H., Surgeon. Detached from the practice ship "Constellation," and wait orders.

CURTIS, L. W., Passed Assistant-Surgeon. Detached from the "Constellation," and to the Naval Academy.

RUSH, W. H., Passed Assistant-Surgeon. Ordered to the U. S. S. "Yantic."

BEYER, H. G., Passed Assistant-Surgeon. Detached from the U. S. S. "Yantic," and granted two months' leave.

BOYD, ROBERT, Assistant-Surgeon. Detached from the U. S. S. "Dale," and to the Marine Rendezvous, Boston.

Notes and Items.

PHILADELPHIA continues its good health record, with 366 deaths last week, a decrease of 11 from the previous week and of 16 from the corresponding period of last year.

DR. CHARLES E. BALLARD shot and killed Miss Bertha Ison, in Bloomington, Illinois, recently, because she would not marry him. He then committed suicide. The girl asked that he wait until her education was completed.

WILLIAM V. MCKEAN, who for over a quarter of a century has been editor-in-chief of the *Public Ledger*, recently tendered his resignation of that position. L. Clarke Davis has become managing editor of the *Ledger*, and it is announced that George W. Childs will himself act hereafter as editor-in-chief.

A YOUTH, well developed, but with additional arms and legs and other organs growing out of his body, was exhibited to physicians and reporters in the Metropolitan Hotel, New York, September 7. He was born in India twenty years ago. The physicians say it would be dangerous to remove the outgrowing parts.

HE was a young man. He had studied law in his father's office, and his father finally retired and gave the business to him. One day, less than a week after the old gentleman had retired, the young man came home and proudly said:

"Father, you know that old Gilpin estate case that you have been trying for years and years to settle?"

"Yes," answered the father, with a suggestion of a smile.

"Well, it didn't take me two days to settle it after I got at it."

"What!" shouted the old lawyer. "You have settled the Gilpin estate?"

"Yes; and it was just as easy as rolling off a log."

"Well, you infernal idiot, you! Why, that estate has paid the living expenses of our family for four generations, and might have paid them for four more if I hadn't left the business to a ninny."

SOME FRENCH DIVORCE STATISTICS.—The *Journal Officiel* publishes some readable statistics relative to the divorces and separations decreed in France during a period of twelve months. The divorces granted after less than one year's connubial happiness amount to 2 per cent. Then comes a tremendous jump to 23 per cent. in the case of unions having lasted from one to five years. The heaviest proportion of all is that for the period extending from the fifth to the tenth year, the number reached being 40 per cent. After that the figures drop rapidly. Only 23 per cent. of couples seek divorce between their tenth and twentieth years of union; between twenty and thirty the proportion is only 6 per cent.; and, finally, only one pair in a hundred seek to cut the knot after sailing through life together for over thirty and under forty years. After more than forty summers of wedded happiness there is no instance of the French equivalent for "a decree nisi." Conjugal infidelity is only the cause of just one-fifth of the divorces granted.

A CHINESE DRUGGIST.—A Chinese druggist will freely display the most nauseous and disgusting substances as medicine; often he will keep a live deer there in a pen against the time when it will be pounded whole in a mortar, *coram populo*, to convince customers that his drugs are genuine. Medicines are gulped down by the quart, the prescriber holding that if one ingredient does not do its work another may. Their virtues, nevertheless, are many and mysterious.

A missionary doctor was well acquainted with a native practitioner, a man of considerable intelligence and repute. He brought him to his home one day and showed, with natural pride, his three fair-haired little girls. The native hastened to compliment his foreign friend: "Their complexions are indeed beautiful, but, if I may say so, their hair is perhaps hardly dark enough." He produced a bottle. "A dose of this taken internally three times a day would make a wonderful improvement." He went on with more embarrassment: "There is another thing about them that I hardly like to mention." His friend reassured him. "Well, if you will allow me to say it, they are all girls. Now, I have at home some pills that are perfectly infallible. Let them take these regularly for a month or so, and I promise they will develop into three as fine boys as father could wish for."

—*Temple Bar.*

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REGULAR SESSION OF 1890-91, OPENED SEPTEMBER 15, 1890.

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